SCS ENGINEERS

Results of Additional Subsurface Investigation

Ghilotti Construction Company 246 Ghilotti Avenue Santa Rosa, California (SCDHS ID #00002017; NCRWQCB Site #1TSO501) (Assessor's Parcel No. 134-171-053)

File Number 01203312.00

Prepared by:

SCS Engineers 3645 Westwind Boulevard Santa Rosa, California 95403

To:

Mr. Cliff Ives Sonoma County Department of Health Services 475 Aviation Blvd., Suite 220 Santa Rosa, California 95403

April 3, 2006

Limitations/Disclaimer

This report has been prepared for Ghilotti Construction Company with specific application to additional subsurface exploration for the property located at 246 Ghilotti Avenue, Santa Rosa, California. This report has been prepared in accordance with the care and skill generally exercised by reputable professionals, under similar circumstances, in this or similar localities. The conclusions contained herein are based on analytical data, and points of exploration. The nature and extent of subsurface conditions may and likely do vary between borings and/or points of exploration. No other warranty, either expressed or implied, is made as to the professional conclusions presented herein.

Access to the property and the surrounding area was limited by buildings, roadways, underground and above-ground utilities and other miscellaneous site and site vicinity features. Therefore, the field exploration and points of subsurface observation were somewhat restricted.

Changes in site use and conditions may occur due to man-made changes or variations in rainfall, temperature, water usage, or other factors. Additional information which was not available to the consultant at the time of this assessment or changes which may occur on the site or in the surrounding area may result in modification to the site and the vicinity that would impact the summary presented herein. This report is not a legal opinion.

We trust this report provides the information you require at this time and we appreciate the opportunity to work with you on this project. If you require any additional information, or have any questions, please do not hesitate to contact SCS at (707) 546-9461.

Kevin L. Coker REA 7887

CA registration fees paid through 06/30/06

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Stephen Knuttel PG 7674

CA registration fees paid through 07/31/07

3. APRIL 2006

Date

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List of Acronyms

AS = Analytical Sciences

BTEX = benzene, toluene, ethylbenzene, xylenes

Bgs = below ground surface CPT = Cone Penetrometer Test EDC = ethylene Dichloride¹ EDB = ethylene Dibromide²

Five Oxys = Five ether-based oxygenates [diisopropyl ether (DIPE), ethyl tertiary butyl

ether (ETBE), tert-amyl methyl ether (TAME), MTBE, and tert-butyl

alcohol (TBA)]

Ghilotti = Ghilotti Construction Company

mg/kg = milligrams per kilogram
MTBE = methyl tertiary butyl ether
NAPL = non aqueous phase liquid

ND = non-detect

Pb Scavs = lead scavengers (EDC, EDB)

PNEG = Pacific Northwest EnviroNet Group, Inc.

RDL = Report Detection Limit

SCDHS = Sonoma County Department of Health Services

SPH = Separate phase hydrocarbons SRS = Sensitive Receptor Survey

TPH-d = Total petroleum hydrocarbons in the diesel range TPH-g = Total petroleum hydrocarbons in the gasoline range

TTC = Trans Tech Consultants μ g/L = micrograms per liter

UN/DOT = United Nations/Department of Transportation

UST = underground storage tank

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¹ EDC has been referred to as 1,2-dichloroethane (1,2-DCA) in previous reports.

² EDB has been referred to as 1,2-dibromoethane (1,2-DBA) in previous reports.

Introduction

SCS Engineers (SCS) is pleased to present the results of additional subsurface investigation and 1st quarter 2006 groundwater monitoring and sampling event performed at Ghilotti Construction Company, 246 Ghilotti Avenue, Santa Rosa, California. This work was performed in accordance with SCS' Work Plan and Work Plan Addendum (SCS, 2005a, 2005c) which were approved by the Sonoma County Department of Health Services (SCDHS, 2005c). The site is located as shown on the Site Location Map, Figure 1. General site features are shown on the Site Plan, Figure 2.

Background

On March 19, 1992, Trans Tech Consultants (TTC) supervised Petroleum Engineering's removal of three underground storage tanks (USTs) from the site, consisting of one 2,000-gallon gasoline UST, one 8,000-gallon diesel fuel UST, and one 7,500-gallon diesel fuel UST (Ghilotti, 1995). Analytical results from the excavation pit sampling indicated an impact by petroleum-related hydrocarbons (Ghilotti, 1995). Subsequently, in October 1992, Ghilotti Construction Company (Ghilotti), under the supervision of TTC, excavated impacted soil until either field observations or laboratory analytical results indicated that residual impacted soil had been removed from the UST excavation area (Ghilotti, 1995; PNEG, 1996). Soil and water analytical results from the excavation activities are presented in Tables 1 and 2.

Based on the results of the excavation activities, a preliminary subsurface investigation was performed at the Site. Three borings (B-1, B-2, and B-3) were subsequently drilled, sampled, and converted into monitoring wells MW-1, MW-2, and MW-3, respectively in November 1992 (Ghilotti, 1995). Soil analytical results are presented in Table 3. The monitoring wells were then placed on a quarterly monitoring program which has continued to the present.

The results of quarterly groundwater monitoring of MW-1 through MW-3 indicated the presence of MTBE in groundwater beneath the Site. The SCDHS subsequently directed additional plume characterization at the Site (SCDHS, 2001). In response to the SCDHS' directive, PNEG prepared and submitted a Work Plan for the installation of additional monitoring wells at the Site and in the Site vicinity (PNEG, 2002). The Work Plan was implemented in February 2005 which consisted of the drilling, sampling, and installation of seven additional monitoring wells (MW-04 through MW-10), and the drilling and sampling of one Cone Penetrometer Test hole (CPT) to assess the deeper groundwater bearing-zone at the Site (SCS, 2005a). Water-bearing zones were identified at approximate depths of 38 and 82 feet bgs. Grab groundwater samples were collected at these depths and were submitted for analysis. The results of the CPT study indicated that the shallow groundwater impact beneath the Site had not impacted the deeper water-bearing zones (SCS, 2005a). Soil analytical results from the February 2005 drilling program are summarized in Table 4, and the CPT groundwater analytical results are summarized in Table 5. Monitoring wells MW-04 through MW-10 were added to the existing monitoring program at the Site. The results of quarterly groundwater monitoring indicated that additional characterization of the MTBE groundwater plume was necessary and, as such, the SCDHS directed additional plume characterization (SCDHS, 2005a).

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SCS subsequently submitted the Work Plan (SCS, 2005b) and Work Plan Addendum (SCS, 2005c), for additional plume characterization, the results of which are presented in this Report.

Sensitive Receptor Survey

A Sensitive Receptor Survey (SRS) was conducted for the site in September 1996 (PNEG, 1996). The subject site has a water supply well located approximately 400 feet east of the former UST locations (Figure 4). The on-site water supply well has been on a quarterly sampling program since 1998 and has been non-detect (ND) for all target analytes since April 2002 (Table 7). The Syar Asphalt site to the south of the Ghlotti property also has a water supply well located near the railroad tracks (Figure 4). Numerous residences to the north/northwest were noted to have water supply wells. Recent information obtained from an on-going investigation of the current Royal Petroleum facility northwest of the site (365 Todd Road) reveals that many of the water supply wells in the vicinity have been connected to the City of Santa Rosa Water Utility system because of a fuel release from the former facility at the Royal Petroleum site located at 365 Todd Road. No sensitive receptors, other than the on-site water supply well, were noted within 500 feet of the former UST locations.

Site Geology/Hydrogeology

The results of the January 2005 drilling program indicated a lithology generally consisting of sandy clay to sandy silt with gravel underlain by silty to sandy clays with gravel to the maximum depth explored of 21.5 feet bgs by hollow stem augers. Results from the one CPT sounding on the site revealed silts and clays with minor sand layers to a depth of approximately 85 feet bgs. Free groundwater was encountered at depths ranging from approximately 9.5 to 11.5 feet bgs. Depth to groundwater has fluctuated seasonally during this investigation from approximately 3.5 feet bgs to 15.5 feet bgs. The groundwater flow direction on the site varies throughout the year, but has been generally to the southwest at gradients ranging from 0.002 to 0.008 (Table 8).

Monitoring Well Installation – 2006

One additional monitoring well (MW-11) was drilled, sampled and installed, and three additional borings (B-09, B-10, and B-11) were drilled and sampled at the approximate locations shown on Figure 3, between the dates of February 22 and 23, 2006. The borings were drilled using 4-inch diameter solid-stem augers to a maximum depth of approximately 15 feet bgs (Appendix A). The monitoring well boring was drilled using 8-inch diameter hollow stem augers and was converted into a monitoring well using 2-inch diameter Schedule 40 flush threaded PVC material. The screened interval in the monitoring well consists of 0.020-inch, machine-slotted screen which extends from approximately 5 to 20 feet bgs. A #2/12 sand was used to create a filter pack around the screen and an approximate 2 foot thick bentonite seal was placed on top of the sand filter pack. The wells were completed to the surface with a cement seal. The PVC well casing in the monitoring well extends to within 6 inches bgs and is fitted with a waterproof locking cap. The well is protected by traffic-

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rated, water-tight circular vault. Additional well completion details are presented on the Well Completion Diagram, Appendix B.

Soil samples were collected and examined for lithology from the monitoring well boring beginning at an approximate depth of 5 feet bgs, and every 5 feet thereafter to a maximum depth of approximately 21.5 feet bgs, and in the borings beginning at approximate depths of 5 feet, and 10 feet bgs. In accordance with the Work Plan (SCS, 2005b, 2005c), no soil samples were collected for laboratory analysis. Grab groundwater samples were collected from each of the borings using a separate disposable bailer for each borehole and were placed into the appropriate containers supplied by the laboratory for analysis. Groundwater samples were labeled, stored under refrigerated conditions, and transported under Chain-of-Custody documentation to Analytical Sciences (AS) of Petaluma, California for analysis. AS is a California Department of Health Services certified laboratory for the analysis requested. Copies of AS' current certifications have been reviewed and are on file. The soil samples were collected following Standard Soil and Water Sampling Procedures and QA/QC Protocol.

The augers were pressure washed, and the small sampling equipment was washed in a detergent solution and rinsed. The drill cuttings were placed on and covered with plastic sheeting, pending disposal. The water generated by decontamination, well development, and sampling is stored at the site in steel 55-gallon UN/DOT-approved drums, pending disposal. Options for the disposal of the soil and groundwater are being evaluated.

Well Development

The newly installed monitoring well (MW-11) was swabbed to set the filter pack during well installation to the extent feasible. The well was developed on March 1, 2006 using a surge block and a submersible field portable groundwater purging pump. Information obtained during well development was recorded on a field sampling form from which a Well Development Record was generated, a copy of which is presented in Appendix C.

Groundwater Monitoring

During the February 7, 2006 monitoring and sampling event, the field technician reported that MW-1 and MW-5 had been covered up as a result of recent paving activities performed by Ghilotti. As such, MW-1 and MW-5 were not accessible during the February 7, 2006 event.

Groundwater depths were measured from MW-2 through MW-4, and MW-6 through MW-10 on February 7, 2006. After Ghilotti uncovered MW-1 and MW-5, SCS returned to the Site on March 1, 2006 and groundwater depths were measured from MW-1, MW-5, and the newly installed well (MW-11). Groundwater depths ranged from approximately 2.5 to 5.5 feet bgs. The depth-to-groundwater measurements from the wells measured on February 7, 2006 were combined with the well casing elevations to determine the groundwater flow direction and gradient. Casing and groundwater elevations are reported in feet relative to mean sea level. Depths to groundwater are

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expressed in feet. For the 1st quarter 2006 monitoring event, the groundwater flow direction was calculated to be southwesterly at a gradient of 0.01 feet per foot (Figure 2, Table 8).

Groundwater Sampling

After the newly installed monitoring well was developed, it was allowed to set prior to collecting a depth to groundwater measurement, which occurred on March 1, 2006. After groundwater depths were measured from the wells, they were checked for the presence of separate phase hydrocarbons (SPH) by subjective evidence and using an oil/water interface probe. No SFH were reported during this monitoring event. The wells were then purged using a submersible pump. Temperature, pH, conductivity, turbidity, and dissolved oxygen were measured during purging to help demonstrate that fresh groundwater was entering the well casing for sampling. Information obtained during sampling was recorded on field sampling forms from which Well Purge Records were generated, copies of which are presented in Appendix C. Each well was allowed to recover prior to sampling. Groundwater samples were collected using a separate disposable bailer for each well, and were transferred into the appropriate containers supplied by the laboratory for analysis. The samples were labeled, stored under refrigerated conditions, and transported under Chain-of-Custody to AS. All samples were collected following Standard Soil and Water Sampling Procedures and QA/QC Protocol. The groundwater generated during the recent well sampling activities is stored at the site in 55-gallon UN/DOT-approved drums, pending disposal.

Well Survey

The top of the new monitoring well casing (MW-11) was surveyed under the supervision of a California licensed land surveyor to 0.01 feet to determine its elevation relative to mean sea level on March 27, 2006. In addition, the latitude and longitude of the monitoring well has been determined to within 1 meter. The surveyed monitoring well elevation and monitoring well location will be submitted electronically to the State Department of Water Resources Geotracker database. A copy of the Well Survey Report is presented in Appendix D.

Laboratory Analysis

Groundwater samples collected from the borings were analyzed for:

• BTEX, the five ether-based oxygenates (MTBE, DIPE, ETBE, TAME, and TBA), and lead scavengers by EPA Method 8260B.

Groundwater samples collected from MW-2 through MW-04, and MW-06 through MW-10, and DW-246 were analyzed for:

• The five ether-based oxygenates by EPA Method 8260B.

Groundwater samples collected from MW-1, MW-05, and MW-11 were analyzed for:

- TPH-g by EPA Method 8015M
- BTEX, and the five ether-based oxygenates by EPA Method 8260B.

Groundwater Analytical Results

The analytical results for the 1st quarter 2006 sampling event conducted on February 7, and subsequent sampling on March 1, 2006 are summarized in Table 6, contoured on the isoconcentration map for MTBE, Figure 3, and plotted on the time versus concentration figure, Figure 5.

For the 1st Quarter 2006 sampling event, MTBE was detected in samples collected from each of the previously existing wells, excluding MW-05, MW-06, and MW-08, at concentrations ranging from 1.0 μ g/L in MW-04 to 30 μ g/L in MW-1; and in the newly installed well, MW-11, at a concentration of 4.4 μ g/L. The additional target analytes were not detected above the laboratory RDL in any of the monitoring well samples.

The groundwater samples collected from borings B-09, B-10, and B-11 were below the laboratory RDL for all target analytes. Groundwater analytical results are presented in Table 6. Copies of the analytical laboratory reports are presented in Appendix E.

Discussion

With the installation and subsequent sampling of the newly installed well MW-11 and groundwater analytical results collected from borings B-09, B-10, and B-11, the extent of the MTBE-impacted groundwater plume appears to be generally assessed to below the San Francisco Bay Regional Water Quality Control Board's Environmental Screening Level (ESL) of 5 μ g/L (Figure 3). Additionally, as indicated on Figure 5, MTBE concentrations in MW-1, MW-2, and MW-3 appear to be declining over time.

Recommendations

SCS recommends continued monitoring at the site to confirm the recent analytical results generated from the newly installed well and to confirm that the groundwater plume has been generally assessed. Based on current and past results from the site, SCS recommends that the analytical suite for future groundwater monitoring at the Site be limited to MTBE by EPA Method 8020. The additional oxygenates have never been detected above the laboratory RDLs in any of the project monitoring wells. Further, a detection limit of $12~\mu g/L$ for TBA has been used for the past two consecutive sampling events at the Site pursuant to a previous request from the SCDHS (SCDHS, 2005b) in response to SCS' prior request to limit the analytical suite at the Site to MTBE only.

Water Disposal

On January 10, 2006, Integrated Wastestream Management transported 1 drums of non-hazardous water to Seaport Refining & Environmental disposal facility in Redwood City. A copy of the Certificate of Disposal is presented in Appendix F.

Reference List

Ghilotti, 1995. Personal communication between D. Ghilotti and L. Mackey-Taverner, June 26.

PNEG, 1996. Monitoring Report, Sensitive Site Receptor Survey, and Request for Site Closure, 246 Ghilotti Avenue, Santa Rosa, California, October 15.

PNEG, 2002. Work Plan to Define the Lateral and Vertical Extent of MTBE Contamination- 246 Ghilotti Avenue, Santa Rosa, California, May 28.

SCDHS, 2001. Work Plan directive, September 12.

SCDHS, 2002. Work Plan approval, June 24.

SCDHS, 2005a. Work Plan directive, dated July 11.

SCDHS, 2005b. Regulatory letter re: using detection limit of 12 µg/L for TBA, September 12.

SCDHS, 2005c. Work Plan approval, November 14.

SCS, 2005a. Results of Additional Subsurface Investigation, at 246 Ghilotti Avenue, Santa Rosa, California, May 6.

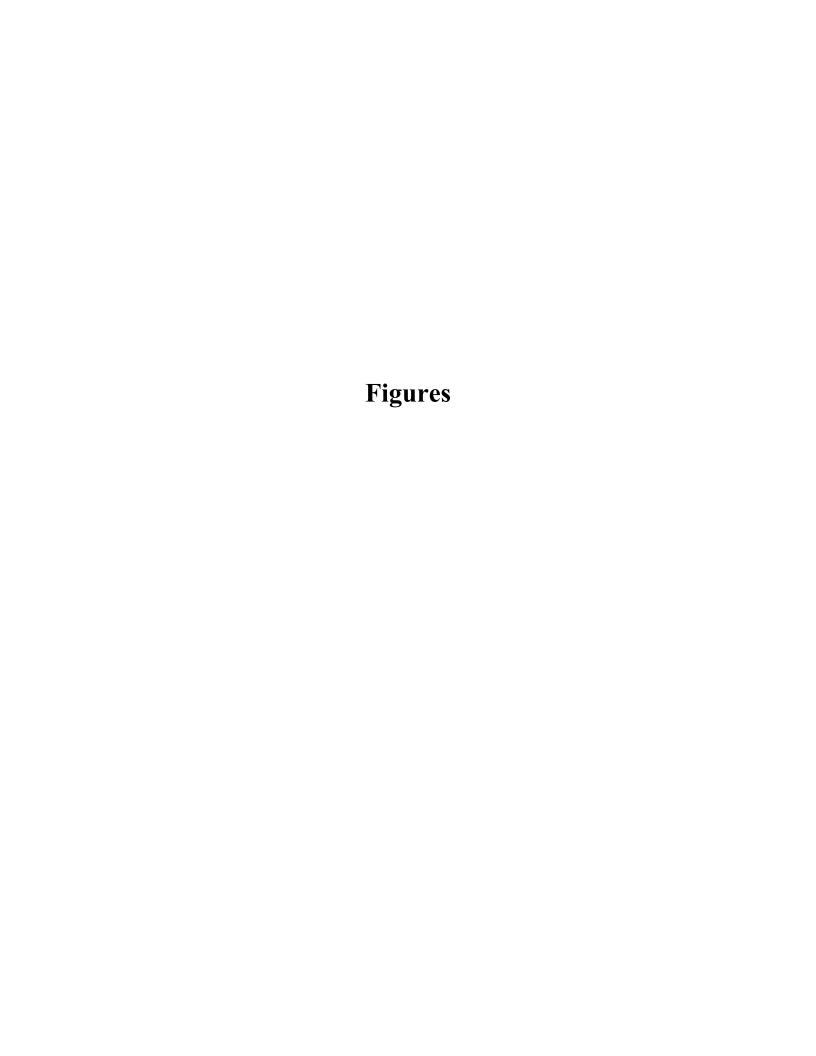
SCS, 2005b. Work Plan for Additional Subsurface Investigation, at 246 Ghilotti Avenue, Santa Rosa, California, September 9.

SCS. 2005c. Work Plan Addendum, dated December 5.

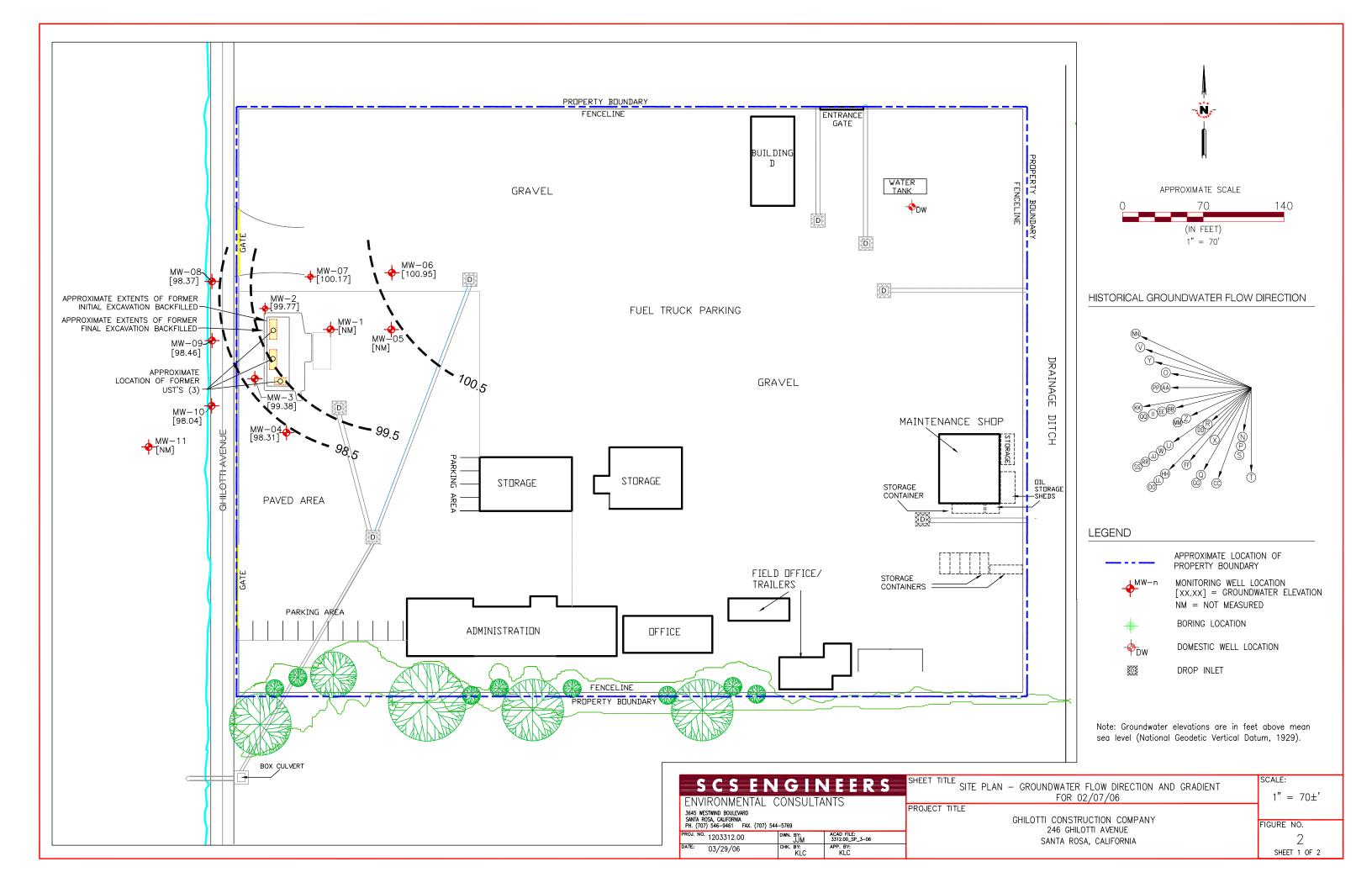
Distribution List

Mr. Damon Calegari Ghilotti Construction Company 246 Ghilotti Avenue Santa Rosa, California 95403

Ms. Beth Lamb North Coast Regional Water Quality Control Board 5550 Skylane Boulevard, Suite A Santa Rosa, California 95403







		ROUND	WATER	FLOW	LEGEN)	
Estimated Flow Direc	Groundwater	Gradient	Contour = 1.0 ft/foot)	Identifier Tag	Date	Est. Flow Direction	Gradient Slope
	<u> </u>	(Interval :	= 1.0 ft/foot)		4/6/04	S45°W	i = 0.002
Identifier Tag	Date	Est. Flow Direction	Gradient Slope	MM	7/7/04	S65°W	i = 0.003
N	6/24/96	S10°W	i = 0.005	(NN)	11/11/04	N60°W	i = 0.003
0	12/20/96	N80°W	i = 0.003	00	2/11/05	SW	i = 0.002
Р	4/18/97	S10°W	i = 0.005	PP	7/6/05	West	i = 0.005
Q	9/11/97	S30°W	i = 0.006	QQ	8/19/05	W to SW	i = 0.002
R	6/19/98	S48°W	i = 0.002	RR	11/18/05	South— westerly	i = 0.005
S	3/3/99	S10°W	i = 0.002	(SS)	2/7, 3/1/06	South— westerly	i = 0.01
Т	6/2/99	Due South	i = 0.008				
U	12/28/99	S55°W	i = 0.003				
V	3/23/00	N68°W	i = 0.03				
W	6/20/00	S55°W	i = 0.003				
X	10/3/00	S35°W	i = 0.005				
Y	1/9/01	N75°W	i = 0.002				
Z	4/10/01	S65°W	i = 0.003				
AA	7/11/01	West	i = 0.003				
BB	10/10/01	S75°W	i = 0.004				
CC	1/9/02	S20°W	i = 0.003				
DD	4/5/02	S50°W	i = 0.002				
EE	7/3/02	S75°W	i = 0.004				
FF	10/24/02	S40°W	i = 0.005				
GG	1/22/03	S30°W	i = 0.002				
HH	4/17/03	S45°W	i = 0.002				
	7/14/03	S75°W	i = 0.003				
JJ	10/7/03	S55°W	i = 0.004				
(KK)	1/2/04	S80°W	i = 0.002				

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SHEET TITLE: SITE PLAN — GROUNDWATER FLOW DIRECTION AND GRADIENT FOR 02/07/06

PROJECT TITLE:

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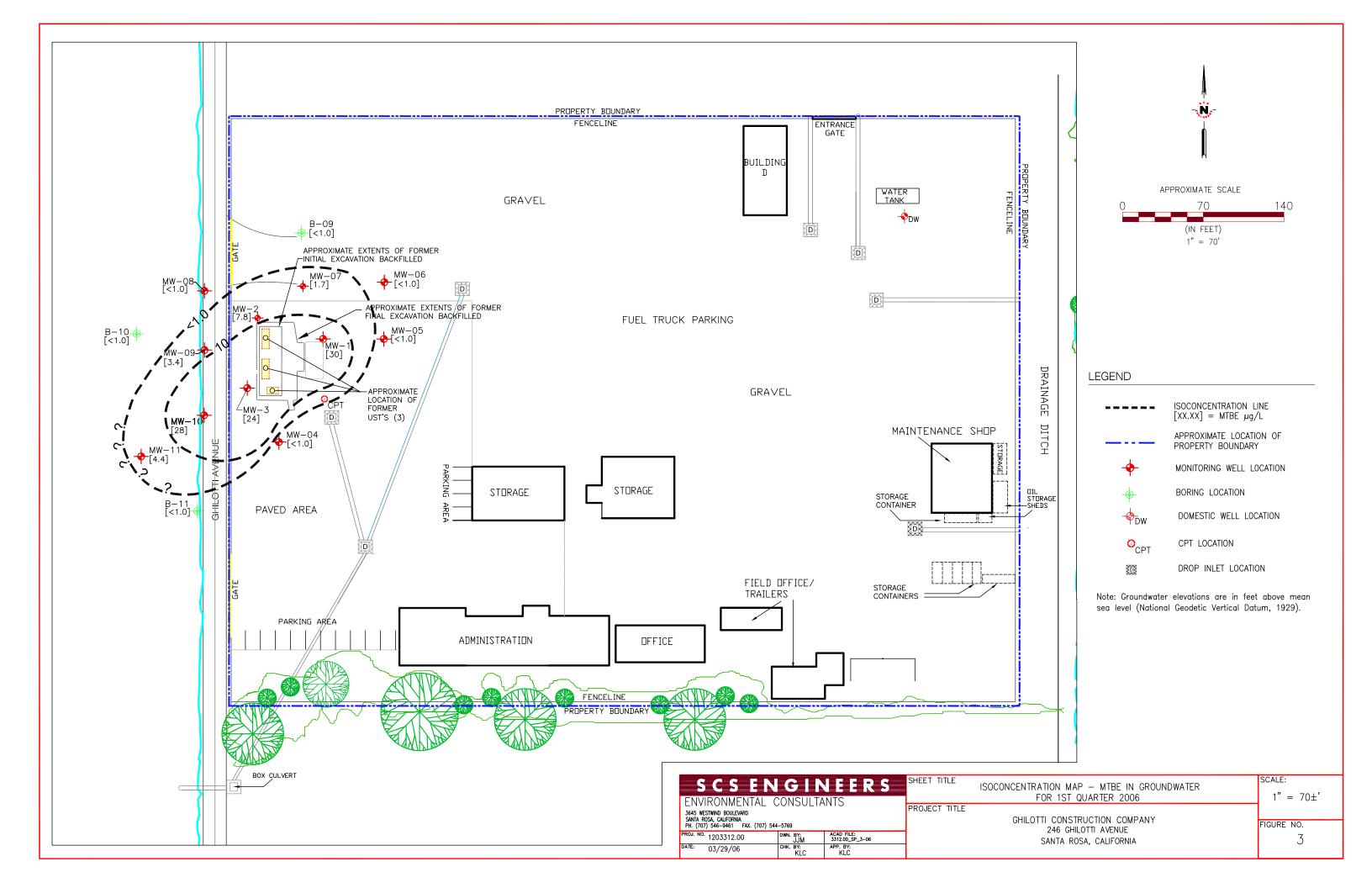
ENVIRONMENTAL CONSULTANTS 3645 WESTWIND BOULEVARD
SANTA ROSA, CALFORNIA 94503
PH. (707) 946–5461 FAX. (707) 544–5769
PROJ. NO. 3312.00 DWN.

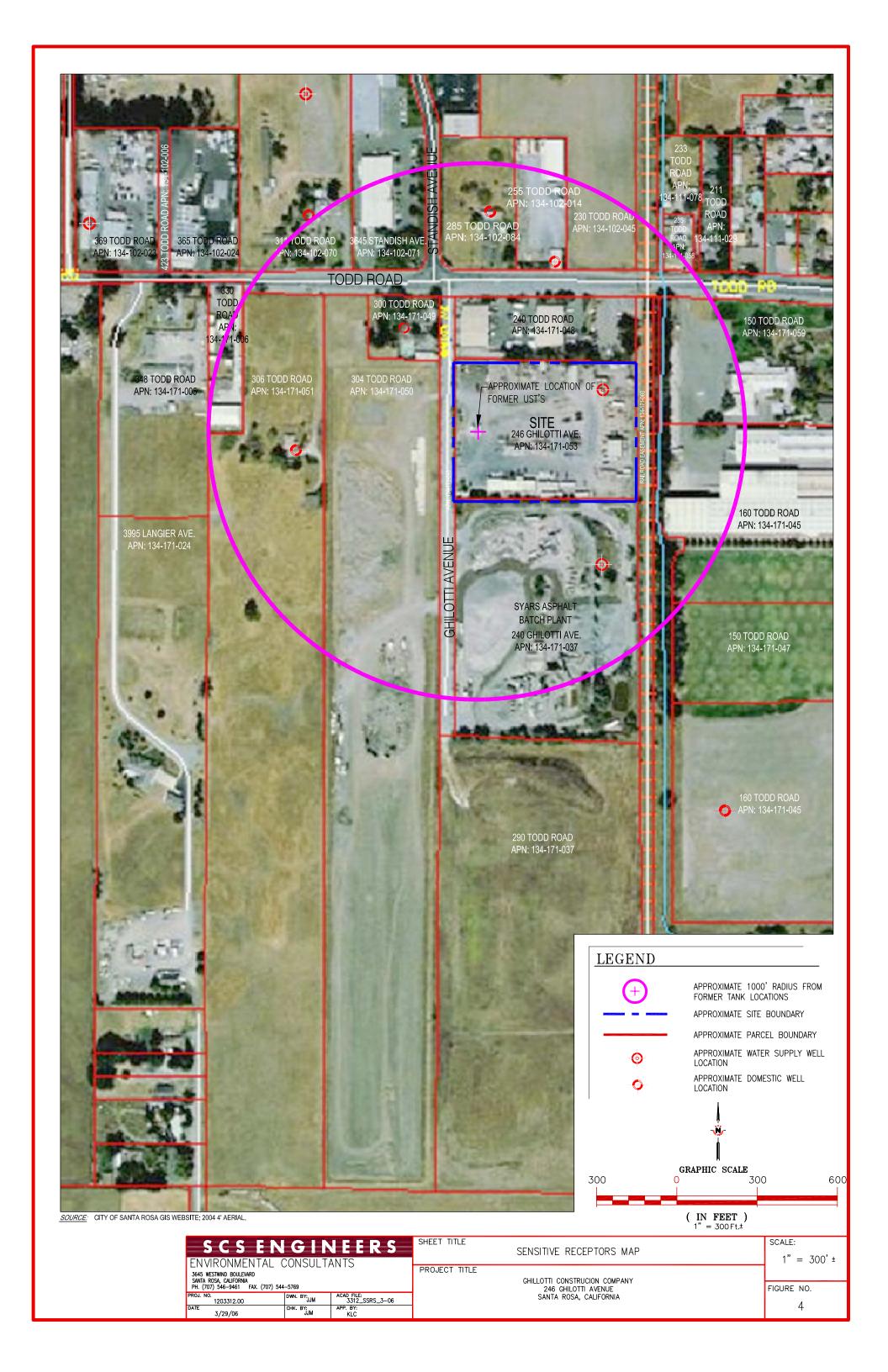
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AJH/JJM
CHK. BY:
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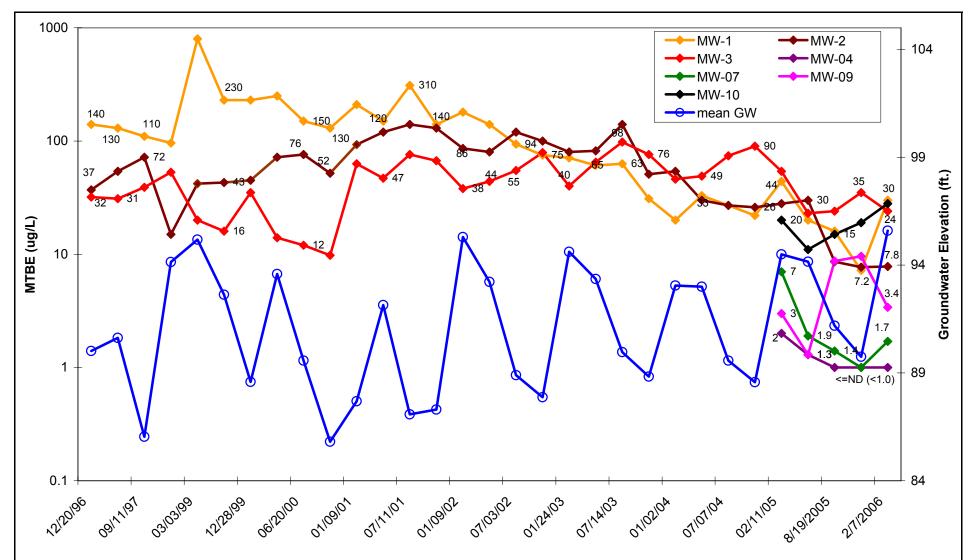
GHILOTTI CONSTRUCTION COMPANY 246 GHILOTTI AVENUE SANTA ROSA, CALIFORNIA

FIGURE NO. 2 SHEET 2 OF 2

SCALE:







Note: MW-1, MW-2, and MW-04 were inaccessible for the June 13, 2005 sampling event. All other wells not plotted have been below the laboratory RDL for MTBE.

SCS ENGIN	IEERS	MTBE & Groundwater Elevation vs Time	FIGURE
3645 WESTWIND BO	OULEVARD	Ghilotti Construction Company	_
SANTA ROSA, CALIFORNIA		246 Ghilotti Avenue	5
PH: (707) 546-9461 F	X: (707)544-5769	Santa Rosa, California	
Drawn By: KLC	File Name: MTBE-GW	Job Number: 01203312.00	DATE: 03/15/06

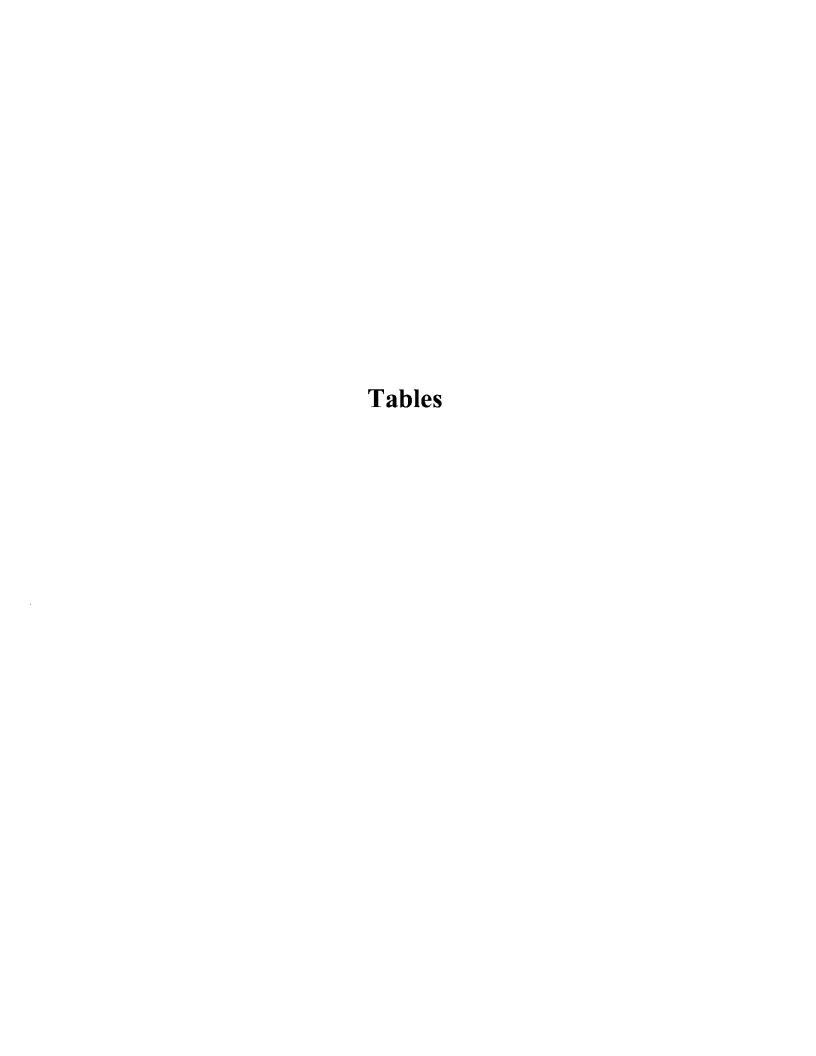


Table 1: Historical Soil Excavation, Stockpile and Groundwater Sample Analytical Results 246 Ghilotti Avenue, Santa Rosa

Sample ID	Date	TPH-g	TPH-d	Lead	benzene	toluene	ethylbenzene	xylenes
Sample ID	Date				mg/kg			
SW-1E	03/19/92	ND		5.3	ND	ND	ND	ND
SW-1W	03/19/92	ND		5.3	ND	ND	ND	ND
SW-2E	03/19/92		ND		ND	ND	ND	ND
SW-2W	03/19/92		ND		ND	ND	ND	ND
SW-3E	03/19/92		12		ND	ND	ND	ND
SW-3W	03/19/92		10*		ND	ND	ND	ND
SP-1	03/19/92	380**		18	ND	ND	ND	0.056
SP-2	03/19/92		970		ND	0.11	0.08	0.43
SP-3	03/19/92		1800		ND	ND	ND	ND
FI-1	03/19/92	170**	1100	5.1	ND	ND	ND	0.12
Groundwater				mg	g/L			
GW-1	3/19/92	14**	38	0.018	0.011	ND	0.0059	0.024

^{*} The positive result for TPH-d appears to be a heavier hydrocarbon than diesel.

Table 2: Historical Excavation Soil Sample Results 246 Ghilotti Avenue, Santa Rosa

Comple ID	Date	TPH-g	TPH-d	Lead	benzene	toluene	ethylbenzene	xylenes
Sample ID	Date				mg/kg			
SW-1	10/01/92	ND	ND	4.5	ND	ND	ND	ND
SW-2	10/01/92	ND	ND	4.1	ND	ND	ND	ND
SW-3	10/01/92	ND	ND	6	ND	ND	ND	ND
SW-4	10/01/92	ND	ND	4.1	ND	ND	ND	ND
B-1	10/01/92	ND	ND	6.1	ND	ND	ND	ND
B-2	10/01/92	ND	1.8	3.8	ND	ND	ND	ND
B-3	10/07/92	1.8*	88	6.2	ND	ND	ND	ND
B-4	10/07/92	ND	23	7.4	ND	ND	ND	ND
B-5	10/07/92	ND	ND	4.9	ND	ND	ND	ND
B-6	10/13/92	ND	ND	6.3	ND	ND	ND	ND
B-7	10/13/92	ND	ND	6.9	ND	ND	ND	ND
B-8	10/13/92	ND	ND	5.9	ND	ND	ND	ND

^{*} The positive result for TPH-g appears to be a heavier hydrocarbon than gasoline.

Table 3: Soil Sample Results - Borings B-1 through B-3 (MW-1 through MW-3) 246 Ghilotti Avenue, Santa Rosa

Sample ID	Date	TPH-g	TPH-d	Lead	benzene	toluene	ethylbenzene	xylenes			
Sample 1D	Date	mg/kg									
B-1-9.0	11/09/92	ND	ND	4.0	ND	ND	ND	ND			
B-2-8.0		ND	ND	4.8	ND	ND	ND	ND			
B-3-9.5		ND	ND	4.9	ND	ND	ND	ND			

ND = Not Detected above the laboratory report detection limit.

^{**} The positive result for TPH-g appears to be a heavier hydrocarbon than gasoline.

Table 4: Soil Analytical Results - Monitoring Wells - 2005 246 Ghilotti Avenue, Santa Rosa

ID	Date	TPH-g	TPH-d	benzene	toluene	ethylbenzene	xylenes	MTBE
ID	Date				mg/kg			
MW-04@5.5'		<1.0	< 5.0	< 0.005	< 0.005	< 0.005	< 0.0015	< 0.0025
MW-04@10.5'		<1.0	< 5.0	< 0.005	< 0.005	< 0.005	< 0.0015	< 0.0025
MW-04@15.5'		<1.0	< 5.0	< 0.005	< 0.005	< 0.005	< 0.0015	< 0.0025
MW-04@20.5'		<1.0	< 5.0	< 0.005	< 0.005	< 0.005	< 0.0015	< 0.0025
MW-05@5.5'	02/01/05	<1.0	< 5.0	< 0.005	< 0.005	< 0.005	< 0.0015	< 0.0025
MW-05@11.0'	02/01/03	<1.0	< 5.0	< 0.005	< 0.005	< 0.005	< 0.0015	< 0.0025
MW-05@15.5'		<1.0	< 5.0	< 0.005	< 0.005	< 0.005	< 0.0015	< 0.0025
MW-06@5.5'		<1.0	< 5.0	< 0.005	< 0.005	< 0.005	< 0.0015	< 0.0025
MW-06@10.5'		<1.0	< 5.0	< 0.005	< 0.005	< 0.005	< 0.0015	< 0.0025
MW-06@15.5'		<1.0	< 5.0	< 0.005	< 0.005	< 0.005	< 0.0015	< 0.0025
MW-07@6.5'		<1.0	NA**	< 0.005	< 0.005	< 0.005	< 0.0015	< 0.0025
MW-07@11.0'*		<1.0	< 5.0	< 0.005	< 0.005	< 0.005	< 0.0015	< 0.0025
MW-07@15.5'	02/02/05	<1.0	< 5.0	< 0.005	< 0.005	< 0.005	< 0.0015	< 0.0025
MW-08@5.5'	02/02/03	<1.0	< 5.0	< 0.005	< 0.005	< 0.005	< 0.0015	< 0.0025
MW-08@10.5'		<1.0	< 5.0	< 0.005	< 0.005	< 0.005	< 0.0015	< 0.0025
MW-08@15.5'		<1.0	< 5.0	< 0.005	< 0.005	< 0.005	< 0.0015	< 0.0025
MW-09@5.5'		<1.0	< 5.0	< 0.005	< 0.005	< 0.005	< 0.0015	< 0.0025
MW-09@11.0'	02/03/05	<1.0	< 5.0	< 0.005	< 0.005	< 0.005	< 0.0015	< 0.0025
MW-09@16.0'		<1.0	< 5.0	< 0.005	< 0.005	< 0.005	< 0.0015	< 0.0025
MW-10@6.0'		<1.0	< 5.0	< 0.005	< 0.005	< 0.005	< 0.0015	< 0.0025
MW-10@10.5'		<1.0	< 5.0	< 0.005	< 0.005	< 0.005	< 0.0015	< 0.0025
MW-10@15.5'		<1.0	< 5.0	< 0.005	< 0.005	< 0.005	< 0.0015	< 0.0025

^{*} Contained lead at a concentration of 3.6 mg/kg.

NA = Not Analyzed

^{**} Limited sample recovery.

Table 5: CPT Groundwater Analytical Results 246 Ghilotti Avenue, Santa Rosa

Î	Sample ID	Date	TPH-g	TPH-d	MTBE	benzene	toluene	ethylbenzene	xylenes	Other Oxys*			
			$\mu \mathrm{g/L}$										
ľ	CPT-01@38.0'	03/02/05	< 50	< 50	2.8*	<1.0	<1.0	<1.0	<1.0	<1.0			
I	CPT-01@82.0'	03/02/05	< 50	< 50	<1.0*	<1.0	<1.0	<1.0	<1.0	<1.0			

Note:

Table 6: Boring Groundwater Analytical Results - 2006 246 Ghilotti Avenue, Santa Rosa

Sample ID	Date	TPH-g	benzene	toluene	ethylbenzene	xylenes	MTBE	Other Oxys	Pb Scavs			
Sample 1D	Date	μg/L										
B-9	02/23/06	< 50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0 to <12	<1.0			
B-10	02/23/06	< 50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0 to <12	<1.0			
B-11	02/23/06	< 50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0 to <12	<1.0			

^{*} Analysis for MTBE by EPA Method 8020; Analysis for 5 oxy's (including MTBE) by EPA Method 8260B; <25 μ g/L For TBA.

Table 7: Groundwater Analytical Results - Monitoring Wells 246 Ghilotti Avenue, Santa Rosa

ID	Date Sampled	TPH-g	TPH-d	benzene	toluene	ethylbenzene	xylenes	MTBE*	DIPE	ETBE	TAME	TBA
	Sampled						μg/L					
	06/24/96	< 50	< 50	< 0.3	< 0.3	< 0.5	< 0.5	NA	NA	NA	NA	NA
	12/20/96	< 50	< 50	< 0.3	< 0.3	< 0.5	< 0.5	140	NA	NA	NA	NA
	04/18/97	< 50	NA	< 0.3	< 0.3	< 0.5	< 0.5	130	NA	NA	NA	NA
	09/11/97	< 50	NA	< 0.3	< 0.3	< 0.5	< 0.5	110	NA	NA	NA	NA
	06/19/98	< 50	NA	< 0.3	< 0.3	< 0.5	< 0.5	96	<1.0	<1.0	<1.0	<25
	03/03/99	< 50	< 50	< 0.3	< 0.3	< 0.5	< 0.5	800	NA	NA	NA	NA
	03/24/99	< 50	< 50	< 0.3	< 0.3	< 0.5	< 0.5	360	NA	NA	NA	NA
	03/26/99	< 50	< 50	< 0.3	< 0.3	< 0.5	< 0.5	250	NA	NA	NA	NA
	06/02/99	< 50	< 50	< 0.3	< 0.3	< 0.5	< 0.5	230	NA	NA	NA	NA
	12/28/99	< 50	NA	< 0.3	0.66	< 0.5	< 0.5	230	<1.0	<1.0	<1.0	<25
	03/23/00	< 50	< 50	< 0.3	< 0.3	< 0.5	< 0.5	250	<1.0	<1.0	<1.0	<25
	06/20/00	< 50	< 50	< 0.3	< 0.3	< 0.5	< 0.5	150	<1.0	<1.0	<1.0	<25
	10/03/00	NA	NA	NA	NA	NA	NA	130	<1.0	<1.0	<1.0	<25
	01/09/01	NA	NA	NA	NA	NA	NA	210	<1.0	<1.0	<1.0	<25
	04/10/01	NA	NA	NA	NA	NA	NA	150	NA	NA	NA	NA
	07/10/01	NA	NA	NA	NA	NA	NA	310	NA	NA	NA	NA
MW-1	10/10/01	NA	NA	NA	NA	NA	NA	140	NA	NA	NA	NA
IVI VV - I	01/09/02	NA	NA	NA	NA	NA	NA	180	NA	NA	NA	NA
	04/05/02	NA	NA	NA	NA	NA	NA	140	<1.0	<1.0	<1.0	<25
	07/03/02	NA	NA	NA	NA	NA	NA	94	<1.0	<1.0	<1.0	<25
	10/24/02	NA	NA	NA	NA	NA	NA	75	<1.0	<1.0	<1.0	<25
	01/24/03	NA	NA	NA	NA	NA	NA	71	<1.0	<1.0	<1.0	<25
	04/17/03	NA	NA	NA	NA	NA	NA	61	<1.0	<1.0	<1.0	<25
	07/14/03	NA	NA	NA	NA	NA	NA	63	<1.0	<1.0	<1.0	<25
	10/07/03	NA	NA	NA	NA	NA	NA	31	<1.0	<1.0	<1.0	<25
	01/02/04	NA	NA	NA	NA	NA	NA	20	<1.0	<1.0	<1.0	<25
	04/06/04	NA	NA	NA	NA	NA	NA	33	<1.0	<1.0	<1.0	<25
	07/07/04	NA	NA	NA	NA	NA	NA	27	<1.0	<1.0	<1.0	<25
	11/23/04	NA	NA	NA	NA	NA	NA	22	NA	NA	NA	NA
	02/11/05	NA	NA	NA	NA	NA	NA	44	<1.0	<1.0	<1.0	<25
	06/13/05					We	ll inaccessib	ole				
	08/19/05	NA	NA	NA	NA	NA	NA	16	<1.0	<1.0	<1.0	<25
	11/18/05	NA	NA	NA	NA	NA	NA	7.2	<1.0	<1.0	<1.0	<12
	03/01/06	NA	NA	NA	NA	NA	NA	30	<1.0	<1.0	<1.0	<12

Table 7: Groundwater Analytical Results - Monitoring Wells 246 Ghilotti Avenue, Santa Rosa

ID	Date	ТРН-g	TPH-d	benzene	toluene	ethylbenzene	xylenes	MTBE*	DIPE	ЕТВЕ	TAME	TBA
	Sampled						μg/L					
	06/24/96	< 50	< 50	< 0.3	< 0.3	< 0.5	< 0.5	NA	NA	NA	NA	NA
	12/20/96	< 50	< 50	< 0.3	< 0.3	< 0.5	< 0.5	37	NA	NA	NA	NA
	04/18/97	< 50	NA	< 0.3	< 0.3	< 0.5	< 0.5	54	NA	NA	NA	NA
	09/11/97	< 50	NA	< 0.3	< 0.3	< 0.5	< 0.5	72	NA	NA	NA	NA
	06/19/98	< 50	NA	< 0.3	< 0.3	< 0.5	< 0.5	15	<1.0	<1.0	<1.0	<25
	03/03/99	< 50	< 50	< 0.3	< 0.3	< 0.5	< 0.5	42	NA	NA	NA	NA
	06/02/99	< 50	< 50	< 0.3	< 0.3	< 0.5	< 0.5	43	NA	NA	NA	NA
	12/28/99	< 50	NA	< 0.3	< 0.3	< 0.5	< 0.5	45	<1.0	<1.0	<1.0	<25
	03/23/00	< 50	< 50	< 0.3	< 0.3	< 0.5	< 0.5	72	<1.0	<1.0	<1.0	<25
	06/20/00	< 50	< 50	< 0.3	< 0.3	< 0.5	< 0.5	76	<1.0	<1.0	<1.0	<25
	10/03/00	NA	NA	NA	NA	NA	NA	52	<1.0	<1.0	<1.0	<25
	01/09/01	NA	NA	NA	NA	NA	NA	93	<1.0	<1.0	<1.0	<25
	04/10/01	NA	NA	NA	NA	NA	NA	120	NA	NA	NA	NA
	07/10/01	NA	NA	NA	NA	NA	NA	140	NA	NA	NA	NA
	10/10/01	NA	NA	NA	NA	NA	NA	130	NA	NA	NA	NA
MW-2	01/09/02	NA	NA	NA	NA	NA	NA	86	NA	NA	NA	NA
IVI VV -2	04/05/02	NA	NA	NA	NA	NA	NA	80	<1.0	<1.0	<1.0	<25
	07/03/02	NA	NA	NA	NA	NA	NA	120	<1.0	<1.0	<1.0	<25
	10/24/02	NA	NA	NA	NA	NA	NA	100	<1.0	<1.0	<1.0	<25
	01/24/03	NA	NA	NA	NA	NA	NA	80	<1.0	<1.0	<1.0	<25
	04/17/03	NA	NA	NA	NA	NA	NA	82	<1.0	<1.0	<1.0	<25
	07/14/03	NA	NA	NA	NA	NA	NA	140	<1.0	<1.0	<1.0	<25
	10/07/03	NA	NA	NA	NA	NA	NA	51	<1.0	<1.0	<1.0	<25
	01/02/04	NA	NA	NA	NA	NA	NA	54	<1.0	<1.0	<1.0	<25
	04/06/04	NA	NA	NA	NA	NA	NA	30	<1.0	<1.0	<1.0	<25
	07/07/04	NA	NA	NA	NA	NA	NA	27	<1.0	<1.0	<1.0	<25
	11/23/04	NA	NA	NA	NA	NA	NA	26	<1.0	<1.0	<1.0	<25
	02/11/05	NA	NA	NA	NA	NA	NA	28	<1.0	<1.0	<1.0	<25
	06/13/05					We	ll inaccessib	ole				
	08/19/05	NA	NA	NA	NA	NA	NA	8.6	<1.0	<1.0	<1.0	<25
	11/18/05	NA	NA	NA	NA	NA	NA	7.7	<1.0	<1.0	<1.0	<12
	02/07/06	/06 NA NA NA NA					NA 7.8 <1.0 <1.0 <1.0					

Table 7: Groundwater Analytical Results - Monitoring Wells 246 Ghilotti Avenue, Santa Rosa

ID	Date	ТРН-д	TPH-d	benzene	toluene	ethylbenzene	xylenes	MTBE*	DIPE	ЕТВЕ	TAME	TBA
	Sampled						μg/L					
	06/24/96	< 50	< 50	< 0.3	< 0.3	< 0.5	< 0.5	NA	NA	NA	NA	NA
	12/20/96	< 50	< 50	< 0.3	< 0.3	< 0.5	< 0.5	32	NA	NA	NA	NA
	04/18/97	< 50	NA	< 0.3	< 0.3	< 0.5	< 0.5	31	NA	NA	NA	NA
	09/11/97	< 50	NA	< 0.3	< 0.3	< 0.5	< 0.5	39	NA	NA	NA	NA
	06/19/98	< 50	NA	< 0.3	< 0.3	< 0.5	< 0.5	53	<1.0	<1.0	<1.0	<25
	03/03/99	< 50	< 50	< 0.3	< 0.3	< 0.5	< 0.5	20	NA	NA	NA	NA
	06/02/99	< 50	< 50	< 0.3	< 0.3	< 0.5	< 0.5	16	NA	NA	NA	NA
	12/28/99	< 50	NA	< 0.3	0.45	< 0.5	< 0.5	35	<1.0	<1.0	<1.0	<25
	03/23/00	< 50	< 50	< 0.3	< 0.3	< 0.5	< 0.5	14	<1.0	<1.0	<1.0	<25
	06/20/00	< 50	< 50	< 0.3	< 0.3	< 0.5	< 0.5	12	<1.0	<1.0	<1.0	<25
	10/03/00	NA	NA	NA	NA	NA	NA	9.8	<1.0	<1.0	<1.0	<25
	01/09/01	NA	NA	NA	NA	NA	NA	63	<1.0	<1.0	<1.0	<25
	04/10/01	NA	NA	NA	NA	NA	NA	47	NA	NA	NA	NA
	07/10/01	NA	NA	NA	NA	NA	NA	76	NA	NA	NA	NA
	10/10/01	NA	NA	NA	NA	NA	NA	67	NA	NA	NA	NA
MW-3	01/09/02	NA	NA	NA	NA	NA	NA	38	NA	NA	NA	NA
IVI VV -3	04/05/02	NA	NA	NA	NA	NA	NA	44	<1.0	<1.0	<1.0	<25
	07/03/02	NA	NA	NA	NA	NA	NA	55	<1.0	<1.0	<1.0	<25
	10/24/02	NA	NA	NA	NA	NA	NA	79	<1.0	<1.0	<1.0	<25
	01/24/03	NA	NA	NA	NA	NA	NA	40	<1.0	<1.0	<1.0	<25
	04/17/03	NA	NA	NA	NA	NA	NA	65	<1.0	<1.0	<1.0	<25
	07/14/03	NA	NA	NA	NA	NA	NA	98	<1.0	<1.0	<1.0	<25
	10/07/03	NA	NA	NA	NA	NA	NA	76	<1.0	<1.0	<1.0	<25
	01/02/04	NA	NA	NA	NA	NA	NA	46	<1.0	<1.0	<1.0	<25
	04/06/04	NA	NA	NA	NA	NA	NA	49	<1.0	<1.0	<1.0	<25
	07/07/04	NA	NA	NA	NA	NA	NA	74	<1.0	<1.0	<1.0	<25
	11/23/04	NA	NA	NA	NA	NA	NA	90	<1.0	<1.0	<1.0	<25
	02/11/05	NA	NA	NA	NA	NA	NA	54	<1.0	<1.0	<1.0	<25
	06/13/05	NA	NA	NA	NA	NA	NA	23	<1.0	<1.0	<1.0	<25
	08/19/05	NA	NA	NA	NA	NA	NA	24	<1.0	<1.0	<1.0	<25
	11/18/05	NA	NA	NA	NA	NA	NA	35	<1.0	<1.0	<1.0	<12
	02/07/06	NA	NA	NA	NA	NA	NA	24	<1.0	<1.0	<1.0	<12

Table 7: Groundwater Analytical Results - Monitoring Wells 246 Ghilotti Avenue, Santa Rosa

ID	Date Sampled	TPH-g	TPH-d	benzene	toluene	ethylbenzene	xylenes	MTBE*	DIPE	ETBE	TAME	TBA
	Sampled	μg/L										
	02/11/05	< 50	NA	<1.0	<1.0	<1.0	1.1	1.9	<1.0	<1.0	<1.0	<25
	06/13/05		•		-	We	ll inaccessib	ole				
MW-04	08/19/05	NA	NA	NA	NA	NA	NA	1.0	<1.0	<1.0	<1.0	<25
	11/18/05	NA	NA	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<12
	02/07/06	NA	NA	NA	NA	NA	NA	1.0	<1.0	<1.0	<1.0	<12
	02/11/05	< 50	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<25
	06/13/05	NA	NA	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<25
MW-05	08/19/05	NA	NA	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<25
	11/18/05	NA	NA	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<12
	03/01/06	NA	NA	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<12
	02/11/05	< 50	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<25
	06/13/05	NA	NA	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<25
MW-06	08/19/05	NA	NA	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<25
	11/18/05	NA	NA	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<12
	02/07/06	NA	NA	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<12
	02/11/05	< 50	NA	<1.0	<1.0	<1.0	<1.0	6.9	<1.0	<1.0	<1.0	<25
	06/13/05	NA	NA	NA	NA	NA	NA	1.9	<1.0	<1.0	<1.0	<25
MW-07	08/19/05	NA	NA	NA	NA	NA	NA	1.4	<1.0	<1.0	<1.0	<25
	11/18/05	NA	NA	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<12
	02/07/06	NA	NA	NA	NA	NA	NA	1.7	<1.0	<1.0	<1.0	<12

Table 7: Groundwater Analytical Results - Monitoring Wells 246 Ghilotti Avenue, Santa Rosa

ID	Date Sampled	ТРН-д	TPH-d	benzene	toluene	ethylbenzene	xylenes	MTBE*	DIPE	ETBE	TAME	TBA
	Sampled µg/L											
	02/11/05	< 50	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<25
	06/13/05	NA	NA	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<25
MW-08	08/19/05	NA	NA	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<25
	11/18/05	NA	NA	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<12
	02/07/06	NA	NA	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<12
	02/11/05	< 50	NA	<1.0	<1.0	<1.0	<1.0	3.2	<1.0	<1.0	<1.0	<25
	06/13/05	NA	NA	NA	NA	NA	NA	1.3	<1.0	<1.0	<1.0	<25
MW-09	08/19/05	NA	NA	NA	NA	NA	NA	8.7	<1.0	<1.0	<1.0	<25
	11/18/05	NA	NA	NA	NA	NA	NA	9.6	<1.0	<1.0	<1.0	<12
	02/07/06	NA	NA	NA	NA	NA	NA	3.4	<1.0	<1.0	<1.0	<12
	02/11/05	< 50	NA	<1.0	<1.0	<1.0	<1.0	20	<1.0	<1.0	<1.0	<25
	06/13/05	NA	NA	NA	NA	NA	NA	11	<1.0	<1.0	<1.0	<25
MW-10	08/19/05	NA	NA	NA	NA	NA	NA	15	<1.0	<1.0	<1.0	<25
	11/18/05	NA	NA	NA	NA	NA	NA	19	<1.0	<1.0	<1.0	<12
	02/07/06	NA	NA	NA	NA	NA	NA	28	<1.0	<1.0	<1.0	<12
MW-11	03/01/06	< 50	NA	<1.0	<1.0	<1.0	<1.0	4.4	<1.0	<1.0	<1.0	<12

Note:

^{*}Analysis for MTBE by EPA Method 8020; Analysis for 5 oxy's (including MTBE) by EPA Method 8260B.

Table 8: Domestic Well Analytical Results 246 Ghilotti Avenue, Santa Rosa

ID	Date	ТРН-д	TPH-d	benzene	toluene	ethylbenzene	xylenes	MTBE*	Other Oxys*
	Sampled					μg/L			
	07/21/98	< 50	NA	< 50	< 0.3	< 0.5	< 0.5	3.4	NA
	08/05/99	< 50	NA	< 50	< 0.3	< 0.5	< 0.5	3.0	NA
	12/28/99	< 50	NA	< 50	< 0.3	< 0.5	< 0.5	1.0	<1.0
	03/23/00	< 50	< 50	< 50	< 0.3	< 0.5	< 0.5	1.5	<1.0
	06/20/00	< 50	< 50	< 50	< 0.3	< 0.5	< 0.5	<1.0	<1.0
	10/03/00	NA	NA	NA	NA	NA	NA	1.5	<1.0
	01/09/01	NA	NA	NA	NA	NA	NA	1.1	<1.0
	04/10/01	NA	NA	NA	NA	NA	NA	<1.0	<1.0
	07/10/01	NA	NA	NA	NA	NA	NA	<1.0	<1.0
	10/10/01	NA	NA	NA	NA	NA	NA	<1.0	NA
	02/14/02	NA	NA	NA	NA	NA	NA	<1.0	NA
	04/05/02	NA	NA	NA	NA	NA	NA	0.59	<1.0
DW-1	07/03/02	NA	NA	NA	NA	NA	NA	< 0.5	<1.0
D W-1	10/24/02	NA	NA	NA	NA	NA	NA	< 0.5	<1.0
	02/14/03	NA	NA	NA	NA	NA	NA	<1.0	<1.0
	04/17/03	NA	NA	NA	NA	NA	NA	<1.0	<1.0
	07/14/03	NA	NA	NA	NA	NA	NA	<1.0	<1.0
	10/07/03	NA	NA	NA	NA	NA	NA	<1.0	<1.0
	01/02/04	NA	NA	NA	NA	NA	NA	<1.0	<1.0
	04/06/04	NA	NA	NA	NA	NA	NA	<1.0	<1.0
	07/07/04	NA	NA	NA	NA	NA	NA	<1.0	<1.0
	11/23/04	NA	NA	NA	NA	NA	NA	<1.0	<1.0
	02/11/05	NA	NA	NA NA		NA	NA	<1.0	<1.0
	08/19/05	NA NA NA NA		NA	NA NA		<1.0	<1.0 to <25	
	11/18/05	/05 NA NA NA NA		NA	NA	NA <1.0		<1.0 to <12	
	02/07/06	NA	NA	NA	NA	NA	NA	<1.0	<1.0 to <12

Note:

^{*} Analysis for MTBE by EPA Method 8020; Analysis for 5 oxy's (including MTBE) by EPA Method 8260B; <25 μ g/L For TBA.

Table 9: Groundwater Flow Direction and Gradient - 1996 to Present 246 Ghilotti Avenue, Santa Rosa

Well #	Date Measured	Top of Casing Elevation (ft. > msl)	Depth to Groundwater (feet)	Water Level Elevation (ft. > msl)	Groundwater Flow Direction & Gradient (i)
MW-1		99.48	7.42	92.06	S10°W
MW-2	06/24/96	99.77	7.67	92.1	i = 0.005
MW-3		99.38	7.58	91.8	1 - 0.003
MW-1		99.48	10.00	89.48	N80°W
MW-2	12/20/96	99.77	10.5	89.27	i = 0.003
MW-3	1	99.38	10.1	89.28	1 – 0.003
MW-1		99.48	7.19	92.29	S10°W
MW-2	04/18/97	99.77	7.41	92.36	i = 0.005
MW-3		99.38	7.34	92.04	1 – 0.003
MW-1		99.48	13.29	86.19	S30°W
MW-2	09/11/97	99.77	13.65	86.12	
MW-3		99.38	13.57	85.81	i = 0.006
MW-1		99.48	5.28	94.2	CAOOM
MW-2	06/19/98	99.77	5.62	94.15	S48°W
MW-3	1	99.38	5.3	94.08	i = 0.002
MW-1		99.48	3.35	96.13	G100W
MW-2	03/03/99	99.77	3.57	96.2	S10°W i = 0.002
MW-3	1	99.38	3.33	96.05	1 = 0.002
MW-1		99.48	6.79	92.69	D C 4
MW-2	06/02/99	99.77	6.91	92.86	Due South
MW-3	1	99.38	7.04	92.34	i = 0.008
MW-1		99.48	12.73	86.75	CE EOW
MW-2	12/28/99	99.77	13.16	86.61	S55°W
MW-3	1	99.38	12.86	86.52	i = 0.003

Table 9: Groundwater Flow Direction and Gradient - 1996 to Present 246 Ghilotti Avenue, Santa Rosa

Well #	Date Measured	Top of Casing Elevation (ft. > msl)	Depth to Groundwater (feet)	Water Level Elevation (ft. > msl)	Groundwater Flow Direction & Gradient (i)		
MW-1		99.48	4.85	94.63	N68°W		
MW-2	03/23/00	99.77	5.33	94.44	i = 0.03		
MW-3		99.38	4.91	94.47	1 – 0.03		
MW-1		99.48	8.44	91.04	S55°W		
MW-2	06/20/00	99.77	8.84	90.93	i = 0.003		
MW-3		99.38	8.57	90.81	1 - 0.003		
MW-1		99.48	13.6	85.88	S35°W		
MW-2	10/03/00	99.77 13.98		85.79			
MW-3	1	99.38	13.87	85.51	i = 0.005		
MW-1		99.48	13.31	86.17	N75°W		
MW-2	01/09/01	99.77	13.71	86.06	i = 0.002		
MW-3		99.38	13.31	86.07	1 – 0.002		
MW-1		99.48	6.79	92.69	S65°W		
MW-2	04/10/01	99.77	7.22	92.55	i = 0.003		
MW-3		99.38	6.92	92.46	1 – 0.003		
MW-1		99.48	11.39	88.09	West		
MW-2	07/11/01	99.77	11.87	87.90	i = 0.003		
MW-3	1	99.38	11.50	87.88	1 – 0.003		
MW-1		99.48	14.78	84.70	S75°W		
MW-2	10/10/01	99.77	15.24	84.53	i = 0.004		
MW-3		99.38	14.93	84.45	1 - 0.004		
MW-1		99.48	3.75	95.73	G200W		
MW-2	01/09/02	99.77	4.06	95.71	S20°W i = 0.003		
MW-3		99.38	3.85	95.53	1 – 0.003		

Table 9: Groundwater Flow Direction and Gradient - 1996 to Present 246 Ghilotti Avenue, Santa Rosa

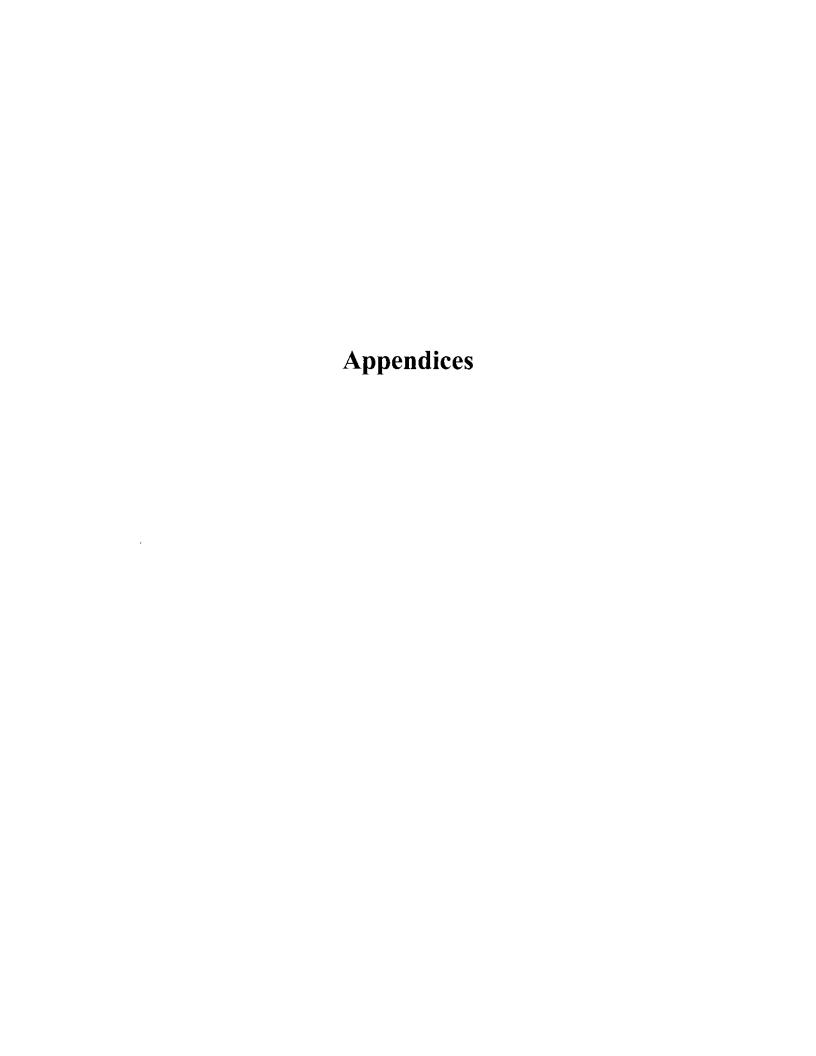
Well #	Date Measured	Top of Casing Elevation (ft. > msl)	Depth to Groundwater (feet)	Water Level Elevation (ft. > msl)	Groundwater Flow Direction & Gradient (i)
MW-1		99.48	5.09	94.39	S50°W
MW-2	04/05/02	99.77	5.44	94.33	i = 0.002
MW-3		99.38	5.15	94.23	1 0.002
MW-1		99.48	9.25	90.23	S75°W
MW-2	07/03/02	99.77	9.74	90.03	i = 0.004
MW-3		99.38	9.44	89.94	1 0.001
MW-1		99.48	13.70	85.78	S40°W
MW-2	10/24/02	99.77	14.13	85.64	i = 0.005
MW-3		99.38	14.01	85.37	1 0.003
MW-1		99.48	4.65	94.83	S30°W
MW-2	01/22/03	99.77	4.97	94.80	i = 0.002
MW-3		99.38	4.69	94.69	1 0.002
MW-1		99.48	5.20	94.28	S45°W
MW-2	04/17/03	99.77	5.55	94.22	i = 0.002
MW-3		99.38	5.25	94.13	1 0.002
MW-1		99.48	8.44	91.04	S75°W
MW-2	07/14/03	99.77	8.90	90.87	i = 0.003
MW-3		99.38	8.59	90.79	1 – 0.003
MW-1		99.48	11.75	87.73	S55°W
MW-2	10/07/03	99.77	12.01	87.76	i = 0.004
MW-3		99.38	12.21	87.17	1 – 0.004
MW-1		99.48	6.68	92.80	S80°W
MW-2	01/02/04	99.77	7.08	92.69	i = 0.002
MW-3		99.38	6.72	92.66	1 – 0.002
MW-1		99.48	5.21	94.27	CAFONI
MW-2	04/06/04	99.77	5.58	94.19	S45°W
MW-3		99.38	5.32	94.06	i = 0.002
MW-1		99.48	9.71	89.77	CCEONI
MW-2	07/07/04	99.77	10.18	89.59	S65°W i = 0.003
MW-3		99.38	9.92	89.46	1 – 0.003
MW-1		99.48	11.71	87.77	MCOOM
MW-2	11/23/04	99.77	12.17	87.60	N60°W
MW-3		99.38	11.73	87.65	i = 0.003
MW-1		99.48	4.90	94.58	
MW-2		99.77	5.21	94.56	1
MW-3		99.38	4.86	94.52	1
MW-04		98.31	3.87	94.44	1
MW-05	02/11/05	100.20	5.52	94.68	SW
MW-06	02/11/05 100.25		6.23	94.72	i = 0.002
MW-07		100.17	5.57	94.60	1
MW-08		98.37	3.89	94.48	1
MW-09		98.46	4.02	94.44	1
MW-10		98.04	3.73	94.31	1

Table 9: Groundwater Flow Direction and Gradient - 1996 to Present 246 Ghilotti Avenue, Santa Rosa

Well #	Date Measured	Top of Casing Elevation (ft. > msl)	Depth to Groundwater (feet)	Water Level Elevation (ft. > msl)	Groundwater Flow Direction & Gradient (i)		
MW-1		99.48		essible			
MW-2		99.77		essible	1		
MW-3		99.38	5.23	94.15			
MW-04		98.31		essible	1		
MW-05	06/12/05	100.20	5.39	94.81	West		
MW-06	06/13/05	100.95	6.46	94.49	i = 0.005		
MW-07		100.17	5.86	94.31	1		
MW-08		98.37	4.19	94.18]		
MW-09		98.46	4.35	94.11]		
MW-10		98.04	4.00	94.04]		
MW-1		99.48	8.15	91.33			
MW-2		99.77	8.52	91.25]		
MW-3		99.38	8.26	91.12			
MW-04		98.31	7.15	91.16			
MW-05	08/19/05	100.20	8.74	91.46	W to SW		
MW-06	06/19/03	100.95	9.36	91.59	i = 0.004 to 0.002		
MW-07		100.17	8.59	91.58			
MW-08		98.37	7.40	90.97			
MW-09		98.46	7.53	90.93			
MW-10		98.04	7.09	90.95			
MW-1		99.48	9.42	90.06			
MW-2		99.77	9.95	89.82			
MW-3		99.38 9.67 89.71		89.71			
MW-04		98.31					
MW-05	11/18/05	100.20 9.88 90.32			Southwesterly		
MW-06	11/16/03	100.95	10.54	90.41	i = 0.005		
MW-07		100.17	10.21	89.96]		
MW-08		98.37	8.82	89.55]		
MW-09		98.46	8.97	89.49]		
MW-10		98.04	8.52	89.52]		
MW-1*		99.48	3.71	95.77			
MW-2		99.77	4.11	95.66	1		
MW-3		99.38	3.84	95.54	1		
MW-04		98.31	2.89	95.42	1		
MW-05	00/07/06 6	100.20	4.48	95.72			
MW-06	02/07/06 &	100.95	5.28	95.67	Southwesterly		
MW-07	03/01/06	100.17	4.51	95.66	i = 0.01		
MW-08		98.37	3.65	94.72	_		
MW-09		98.46	2.84	95.62			
MW-10		98.04	2.56	95.48			
MW-11*		102.62	4.40	98.22			

MW-04 through MW-10 were surveyed to msl on March 9, 2005; MW-11 was surveyed to msl on March 27, 2006.

^{* =} Not used for groundwater flow direction calculation.



Appendix A

Unified Soil Classification System Chart and Boring Log Legend Boring Logs for MW-11 and B-09, B-10, and B-11

GENE	RAL SOIL CAT	EGORIES		BOLS	TYPICAL SOIL TYPES
	0	Clean Gravel	X	GW	Well Graded Gravels, Gravel - Sand mixtures
တ	Gravel More than half of	with little or no fines		GP	Poorly Graded Gravels, Gravel - Sand mixtures
ED SOILS is larger sieve	coarse fraction is larger than No. 4 sieve size	Gravel with		GM	Silty Gravels, Poorly Graded; Gravel - Sand - Silt Mixtures
OARSE GRAINED SOIL More than half is larger than no. 200 sieve		more than 12% fines		GC	Clayey Gravels, Poorly Graded; Gravel - Sand - Clay Mixtures
ARSE GR. ore than h than no. 3	Sand	Clean Sand with little or	0.00	SW	Well Graded Sands, Gravelly Sands
COARSE More th	More than half of	no fines		SP	Poorly Graded Sands, Gravelly Sands
0	coarse fraction is smaller than No. 4 sieve size	Sand with more than		SM	Silty Sands, Poorly Graded; Sand - Silt Mixtures
		12% fines		sc	Clayey Sands, Poorly Graded; Sand - Clay Mixtures
_	Silt and Clay			ML	Inorganic Silts and Very Fine Sands, Rock Flour, Silty or Clayey Fine Sands or Clayey Silts with Slight Plasticity
SOILS s smaller sieve	Liquid Limit Less			CL	Inorganic Clays of Low to Medium Plasticity, Gravelly Clays, Sandy Clays, Silty Clays, Lean Clays
	than 50%			OL	Organic Silts and Organic Silty Clays of Low Plasticity
GRAI han h n no.	Silt and Clay			МН	Inorganic Silts, Micaceous or Diatomaceous Fine Sandy or Silty Soils, Elastic Silts
FINE fore tl tha	Liquid Limit Greater			СН	Inorganic Clays of High Plasticity, Fat Clays
	than 50%			ОН	Organic Clays of Medium to High Plasticity
	Highly Organic So	ils	<u> </u>	PT	Peat and Other Highly Organic Soils
	Bedrock			BR	Bedrock
	Aggregate Base			В	Mixed Fill
	Asphalt		X	Α	Asphalt
	Concrete			С	Concrete
	mple submitted for chen	•	CMS SPT CBS GRA	= Stand	A Modified Split Spoon dard Penetration Test ☐ First Identified Free Water cinuous Barrel Sampler ab Sample ☐ n.a. = not applicable

SCS ENGINEERS

Environmental Consultants 3645 Westwind Boulevard Santa Rosa, California 95403 Ph.: 707-546-9461 Fax: 707-544-5769

UNIFIED SOIL CLASSIFICATION SYSTEM CHART and BORING LOG LEGEND

Ghilotti Construction Company 246 Ghilotti Avenue Santa Rosa, California 95407 Job Number: 01203312.00 Figure

Appendix A A-1 1 of 1

Dri Log	ling gged	tart, er Time (I By: ed By:	start, Step	enc hen	l) 09 Knütt	9:10 el		20			ring I		See	e Uni	ocation: North of MW-07 fied Soil Classification System (USCS) nd and information not noted.		
Dri Dri Sa Ha	ler's ling mplir	Contra Name Metho ng Met er weig	e: <u>Pal</u> d: <u>4-i</u> thod:	blo (n. S SP	Gonza olid-Si T	les tem /	Auge	r					MW Installed: Y □ N ☒ if no, boring backfilled with: Cement □ Bentonite: Cement □ Grout ☒ Chips □ Auger Depth, ft: 15.0 Total Depth, ft: 15.0 Temp. Screen (interval/dia./slot): 10-15 ft. / 2 in. / 0.01 in.				
Sample	Inches Recovered	Blows / 6 in	Sampler Type	Water Levels	PID (ppm)	Odor	Discoloration	104.0 103.7-	Depth in Feet	Graphic Log	Gravel %	Sand %	Silt %	Clay %	Lithologic Description and Drilling Comments: ASPHALT: over base rock. CLAY with Sand (CL): dark brown, very fine to fine grained sand, trace fine gravel, moist.		
	0 6 6	3 3 4	SPT		0	No	No	100.0-	- - 5- -			5 5	35 35	60 60	CLAY (CL): medium gray, minor very fine grained sand, moist, silty.		
	6 6 6	3 4 5	SPT		0			95.5-	- 10- -			30 30 30	30 30 30	40 40 40	SANDY CLAY (CL): medium gray, very fine to fine grained sand, wet.		
				Ā			V	- 89.0-	- 15- -						TOTAL DEPTH = 15.0 FEET		
3	Enviro 1645 Santa	C S onment Westwa Rosa, 707-546	tal Co /ind B Calif	onsu Boule Fornia	Itants vard a 9540)3		R S		Ghil 246 San	otti (Ghi ta R	Cons lotti <i>i</i> losa,	struc Aver , Cal	tion nue liforn	G B-09 Company iia 95407 312.00 Figure: B-09 1 of 1		

Dri Lo	ling gged	tart, er Time (I By: ed By:	start, Step	, enc ohen	d) 10 Knütt):50 tel		30			ring f		See Unified Soil Classification System (USCS) for Legend and information not noted.					
Dri Dri Sa Ha	rilling Contractor: Clear Heart Drilling, Inc. riller's Name: Pablo Gonzales rilling Method: 4-in. Solid-Stem Auger ampling Method: SPT ammer weight / fall: 140 lbs / 30 inch otes:												——— Cement □ Bentonite: Cement □ Grou					
Sample	Inches Recovered	Blows / 6 in	Sampler Type	Water Levels	PID (ppm)	Odor	Discoloration	0.8e Elevation	Depth in Feet	Graphic Log	Gravel %	Sand %	Silt %	Clay %	Lithologic Description and Drilling Comments: CLAYEY SAND with Gravel (SC): brown, (FILL?).			
	6 6 6	3 4 5	SPT		0	No	No	94.0-	- - 5- -			5 5 5	35 35 35	60 60 60	CLAY with Sand (CL): dark brown, very fine to fine grained sand, moist. CLAY (CL): medium gray, minor very fine grained sand, moist, silty.			
	6 6 6	4 6 9	SPT	፟	0			89.5-	- 10- - -			15 15 15	35 35 35	50 50 50	CLAY with Sand (CL): gray to brown, very fine grained sand, moist to wet.			
						\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	V	83.0-	- 15- -						TOTAL DEPTH = 15.0 FEET			
3	Enviro 645 Santa	C S onmen Westw a Rosa, 707-546	tal Co vind B , Calif	onsul Boule Fornia	Itants vard a 9540	03		R S		Ghil 246 San	otti (Ghi ta R	Cons lotti <i>i</i> losa,	struc Aver , Cal	tion nue liforn	G B-10 Company iia 95407 312.00 Figure: B-10 1 of 1			

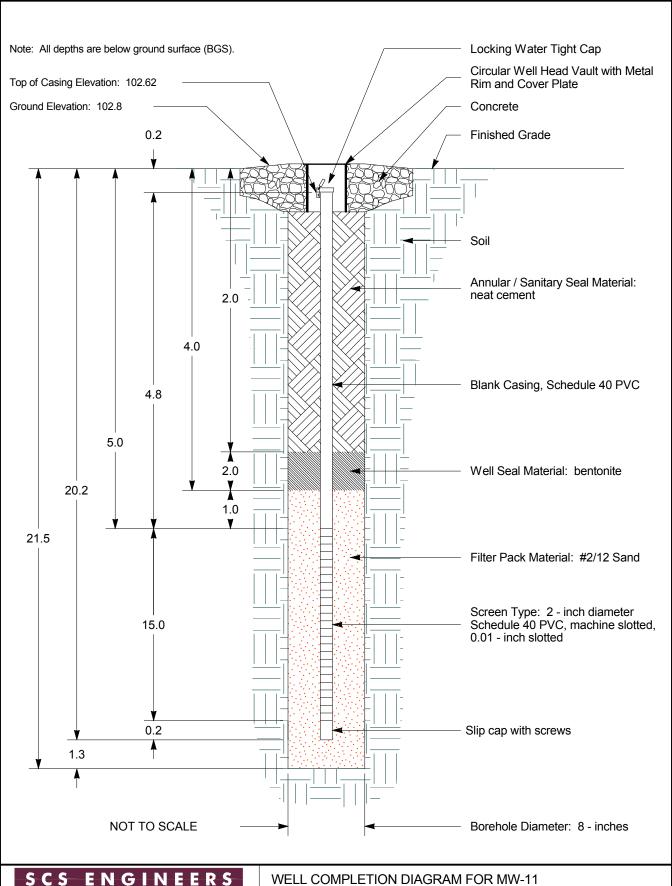
Dri	lling	tart, er Time (start,	end	l) 1	1:50 -		30			Boring No. Boring Location: Ghilotti Avenue							
		l By: ed By:	-												fied Soil Classification System (USCS) and and information not noted.			
Dril Dril Sai Ha	ller's lling mplir	Contra Name Metho ng Met er weig	: <u>Pa</u> d: <u>4-i</u> :hod:	blo (n. S SP	Gonza olid-S T	les tem /	∖uge	r										
Sample	Inches Recovered	Blows / 6 in	Sampler Type	Water Levels	PID (ppm)	Odor	Discoloration	0.201 0.201	Depth in Feet	Graphic Log	Gravel %	Sand %	Silt %	Clay %	Lithologic Description and Drilling Comments:			
<u> </u>	_		0,			A	Ā	102.0		Ä		0,	0,		ASPHALT: over base rock.			
								100.5-	-						CLAY with Sand (CL): dark brown, very fine to fine grained sand, trace fine gravel, moist.			
	6 6 6	7 13 13	SPT		0	No	No	98.0-	5- - -			20 20 20	50 50 50	30 30 30	SILT with Sand (ML): light brown, very fine to fine grained sand, moist to wet, clayey.			
	6 6 6	8 8 11	SPT	⊻	0			00.5	- 10- -			20 20 20	40 40 40	40 40 40	Increased clay content.			
						,		90.5-	-						TOTAL DEPTH = 11.5 FEET			
									15-									
E 33 33 F	S	C S	E	Ν	GΙ	N	ΕE	R S		ВС	RI	NC	3 L	OC	6 B-11			
3	3645 Santa	onment Westwa Rosa, 707-546	ind B Calif	oule ornia	vard 9540		-576	9		246 San	Ghi ta R	lotti <i>i</i> losa,	Aver , Cal	nue liforn	Company nia 95407 312.00 Figure: B-11 1 of 1			

		tart, er Time (00			ing 1 N- 1		Bori	ing L	ocation: Field west of Ghilotti Avenue					
Lo	gged	By: By:	Step	hen	Knütt	tel		, 0		IVIV	/ V -				fied Soil Classification System (USCS) nd and information not noted.					
Dri	lling	Contra	actor:	Cle	ar He	art D	rilling	, Inc.							stalled: Y⊠ N□ if no, boring backfille	ed with:				
		Name Metho					n Aug	jer					Content _ Bontonite. Content _ Croat _ Cripo_							
Sa	mplir	ng Met er weig	hod:	CM	SS				<i></i>						Auger Depth, ft: 20.0 Total Depth, ft: 21.5					
	tes:	er weig	111.7 16	all	140 10	5/30	J II ICI	<u> </u>												
	/ered		a)					_												
Sample	Inches Recovered	Blows / 6 in	Sampler Type	Water Levels	PID (ppm)	Odor	Discoloration	Elevation	Depth in Feet	Graphic Log	Gravel %	Sand %	Silt %	Clay %	Lithologic Description and Drilling Com	ments:				
S	ū	<u> </u>	Š	8	颪	A	iO	102.8	Ğ	Ō	Ō	Š	iS	ō	SANDY CLAY with Gravel (CL): dark brow medium grained sand and fine gravel, moist,	n, fine to (FILL?).				
X	0 0 6	3 4 6	SPT		0			99.3-	5- -			Т	30	70	CLAY (CL): dark gray, moist, silty.					
						No	No	94.8-	-						SANDY CLAY (CL): brown, very fine grained moist to wet, silty.					
X	6 6	5 8 8	SPT		0				10- - -			30 30 30	30 30 30	40 40 40						
				Ā				90.3-	-						CLAYEY SAND (SC): brown, very fine to fine sand, wet.	e grained				
X	6	5 4	SPT		0			86.8-	15- -			40 40	30	30	CLAY (CL) y brown maint to wot					
E S	6	4							-			40	30	30	CLAY (CL): brown, moist to wet.					
	S	C S	E	N	GΙ	N	E E	R S		BC	RI	NC	3 L	OG	G MW-11					
		onment Westw								Ghile 246					Company					
5	Santa	Rosa,	Calif	ornia	9540		1 5760	1		San	ta R	osa,	, Cal	iforn	ia 95407 312.00	MW-11				
F	-II <i>I</i>	707-546	J-540	ı Fâ	ax. /U	1-544	-5/05	9		JOD	เทนก	ıınel	. 0	203	J 12.00	1 of 2				

Sample	Inches Recovered	Blows / 6 in	Sampler Type	Water Levels	PID (ppm)	Odor	- Discoloration	Elevation	Depth in Feet	Graphic Log	Gravel %	Sand %	Silt %	Clay %	Lithologic Description and Drilling Comments:
	6 6	3 3 3	SPT		0	No	No	82.3- 81.3-	-			20	40 40 30	60 60 50	CLAY with Sand (CL): brown, very fine grained sand, wet, silty.
									- 25-						TOTAL DEPTH = 21.5 FEET
									30-						
17 ACGA:GD1 03/20/00									- 35- -						
SCS-SANTA NOSA BONING LOG UIZGGS IZGGGGT SCS-SANTA NOSA.GDT USZGGG									- 40- -						
E C C C	Envir 3645 Santa	conment Westwa Rosa, 707-546	al Co ind B Calif	nsul oule ornia	tants vard 9540)3				Ghil 246 San	otti (Ghil ta R	Cons lotti <i>i</i> osa,	struc Aver Cal	tion nue iforn	Company iia 95407 312.00 Figure: MW-11 2 of 2

Appendix B

Well Completion Diagram for MW-11 DWR 188 form for MW-11



ENGINEERS

Environmental Consultants 3645 Westwind Boulevard Santa Rosa, California 95403

Ph.: 707-546-9461 Fax: 707-544-5769

Ghilotti Construction Company 246 Ghilotti Avenue Santa Rosa, California 95407 Job Number: 01203312.00

Figure:

Appendix B MW-11

ORIGINAL File with DWR

STATE OF CALIFORNIA

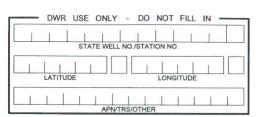
WELL COMPLETION REPORT

Refer to Instruction Pamphlet

rage or				
Owner's Well No.	MW-11		No.	1072885
Date Work Began	02/22/06	Ended	02/22/06	10/2005

Local Permit Agency County of Sonoma Department of Health Services

Permit No. 4921HMW Permit Date 01/20/06



1 CHIII	t No	GEOLOGIC LOG	WELL OWNER -
ORIENTATIO	N (∠)	✓ VERTICAL HORIZONTAL ANGLE (SPECIFY)	Name Richard Ghilotti
		DRILLING Hollow-Stem Auger FLUID n.a.	Mailing Address 246 Ghilotti Avenue
	FACE	DESCRIPTION	Santa Rosa CA 95407
Ft. t	lo Ft.	Describe material, grain size, color, etc.	CITY STATE ZIP
0	3.5	SANDY CLAY with Gravel (CL): dark brown,	Address246 Ghilotti Avenue
		fine to medium grained sand and fine gravel, moist.	City Santa Rosa
3.5	8	CLAY (CL): dark gray, moist.	County Sonoma
8	12.5	SANDY CLAY (CL): brown, very fine grained	APN Book134
		sand, moist to wet.	Township Range Section
12.5	16	CLAYEY SAND (SC): brown, very fine to fine	Latitude NORTH Longitude WES DEG. MIN. SEC.
	İ	grained sand, wet.	DEG. MIN. SEC. LOCATION SKETCH — DEG. MIN. SEC. ACTIVITY (∠)
16	20.5	CLAY (CL): brown, moist to wet.	NORTH ACTIVITY (Y)
20.5	21.5	CLAY with Sand (CL): brown, very fine grained	MODIFICATION/REPAIR
		sand, wet.	Deepen
			Other (Specify)
			DESTROY (Describe
			APPROXIMATE PROCEDURES and Materials EXTENTS OF FORMS Uniform Uniform (GEOLOGIC LOG")
			APPROXIMATE LOCATION BACKPILLED BACKPILLED DIANNED LICEC (A
			WATER SUPPLY
			Domestic Public Irrigation Industria
			MONITORING ✓
			PAVED AREA TEST WELL
	l		CATHODIC PROTECTION
			HEAT EXCHANGE
			DIRECT PUSH
			AIMINISTRATION VAPOR EXTRACTOR
	1		SPARGING _
			SOUTH REMEDIATION REMEDIATION
			Fences, Rivers, etc. and attach a map. Use additional paper if necessary. PLEASE BE ACCURATE & COMPLETE. OTHER (SPECIFY)
			WATER LEVEL & YIELD OF COMPLETED WELL
	i	1	DEPTH TO FIRST WATER13 (Ft.) BELOW SURFACE
	1		DEPTH OF STATIC WATER LEVEL
			ESTIMATED VIELD* N.A. (GPM) & TEST TYPE N.A.
ГОТАІ	DEPTH C	OF BORING21.5 (Feet)	TEST LENGTH
		OF COMPLETED WELL 20.2 (Feet)	* May not be representative of a well's long-term yield.
VIAL	DEI III C	TOTAL LETED WELL (100)	may not be representative of a well's long-term yield.

	PTH	BORE-				C	ASING (S)	
	to Ft.	HOLE DIA. (inches)	BLANK		CON- DUCTOR (MATERIAL / GRADE	INTERNAL DIAMETER (inches)	GAUGE OR WALL THICKNESS	SLOT SIZE IF ANY (inches)
-	-	-				-	-		
0.2	5.0	8	1			PVC	2	0.25	
5.0	20.0	8		1		PVC	2	0.25	0.01
20.0	20.2	8	1			PVC	2	0.25	

	PTH	A	NNUL	AR N	IATERIAL
FROM S	SURFACE		, ,	TYP	E
Ft.	to Ft.	CE- MENT (∠)	BEN- TONITE (∠)	FILL (⊻)	FILTER PACK (TYPE/SIZE)
0	2.0	1			
2.0	4.0		1		
4.0	21.5			√	#2/12 Sand
4.0	21.5			·	#2/12 San
	i				

—ATTACHMENTS (

- ___ Geologic Log
- Well Construction Diagram
- Geophysical Log(s)
- ___ Soil/Water Chemical Analyses
- ___ Other ____ ATTACH ADDITIONAL INFORMATION, IF IT EXISTS.

	-CERTIF	ICAT	ION	STAT	EME	VI
The second secon						

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief.

NAME SCS Engineers
PERSON, FIRM, OR CORPORATION (TYPED OR PRINTED)

3645 Westwind Boulevard Santa Rosa California 95403

ADDRESS CITY STATE ZIP

Signed Z9 Mar 06 780357
WELL DRILLER/AUTHORIZED REPRESENTATIVE DATE SIGNED C-67 LICENSE NUMBER

Appendix C

Well Development Record for MW-11 Well Purge Records, 1st Quarter 2006

		_			WELL NUMBER
SCSE	NGINEER	S	WELL DEVELO	PMENT RECORD	MW-11
PROJECT			JOB NUMBER	SITE	RECORDED BY
Gh	ilotti Construction Comp	pany	01203312.00	246 Ghilotti Avenue	Rick Erdman
PROJECT LOCATION	,		AIR TEMPERATURE	WEATHER	SUBCONTRACTOR
246 Ghile	otti Avenue Santa Rosa,	California	~50 °	Rain	None
	METHOD	Minimum of stabilized.		discharge is clear and water	characteristics have
HAND PUMP (HP)		- REMARKS			
SUBMERSIBLE PUMP (SP) BAILER (B)	X X			check for NAPLs; MLE = M	leter Limit Exceeded, i.e.

HOLE DIAMETER $d_H = 8.0$

WELL CASING

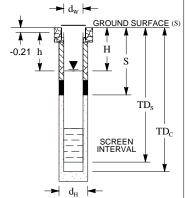
SURGE BLOCK (SB) .

DEPTH TO:

WATER LEVEL h = 4.45BASE OF SEAL S = 4.0BASE OF SCREEN TD_S = 20.0BASE OF SUMP TD_C = 20.2

ESTIMATED FILTER P = 0.25 PACK POROSITY

Diameters in (inches) : Depths in (feet)



PURGE VOLUME CALCULATION

CASING VOLUME =

$$V_{c} = \pi \left(\frac{d_{W}|D}{2}\right)^{2} (TD_{c} - H) = 3.14 \left(\frac{0.17}{2}\right)^{2} (20.2 - 4.7)$$

= **0.34 ft**³

FILTER PACK PORE VOLUME =

$$V_{F} = \pi \left[\left(\frac{d_{H}}{2} \right)^{2} - \left(\frac{d_{W}OD}{2} \right)^{2} \right] (TD_{s} - (S \text{ or H})^{*})(P)$$
= 1.21 ft³

TOTAL WELL VOLUME =

$$V_T = V_C + V_F = 1.55 \text{ ft}^3 \text{ x 7.48 gal/ft}^3 = 11.6 \text{ gal}$$

(* If S > H, use S; If S < H, use H)

	DEVE	OPME	NT LOG			LATIVE EMOVED		WATER		COMMENTS		
DATE	TIM	ИΕ	METHOD	WATER REMOVED	GAL	WELL	pН	CONDUCTIVITY	TURBIDITY	TEMPERATURE	DISSOLVED OXYGEN	
	BEGIN	FINISH		(GAL)		VOLUMES	F ···	(mmhos/cm)	(NTU)	(°C)	(ppm)	
03/01/06	10:05	10:25	В	3	3	0.26	n.r.	n.r.	n.r.	n.r.	n.r.	Bailed Solids
03/01/06	10:25	10:45	SB	0	3	0.26	n.a.	n.a.	n.a.	n.a.	n.a.	Surged well
03/01/06	10:45	11:15	SP	25	28	2.42	7.38	1.62	*MLE	17.9	1.32	
03/01/06	11:15	11:30	SB	0	28	2.42	n.a.	n.a.	n.a.	n.a.	n.a.	Surged well
03/01/06	11:30	11:45	В	2	30	2.59	n.r.	n.r.	n.r.	n.r.	n.r.	Bailed Solids
03/01/06	11:45	12:15	SP	25	55	4.75	7.28	1.3	*MLE	18.3	0.79	
03/01/06	12:15	12:25	SB	0	55	4.75	n.a.	n.a.	n.a.	n.a.	n.a.	Surged well
03/01/06	12:25	12:30	SP	5	60	5.19	7.35	1.29	451	18.3	0.69	
03/01/06	12:30	12:35	SP	5	65	5.62	7.33	1.28	179	18.3	0.58	
03/01/06	12:35	12:40	SP	5	70	6.05	7.32	1.28	111	18.2	0.63	
03/01/06	12:40	12:45	SP	5	75	6.48	7.32	1.27	77	18.2	0.49	
03/01/06												
								1				

	SEN	1 G I I	NEEF	R S		20	PURGE 006 - 1st Qu	ıarter	אט		WELL NUMBER MW-11
ROJECT	Ghilo	tti Constr	uction Co	mpany		JOB NUMBE 01203	3312.00	SITE 246 (Ghilotti Av		RECORDED BY Rick Erdman
		PUR	GING THOD	SAMPLIN METHO		PURGING C	RITERIA M i	inimum of . . wells), un	3 wetted c	asing volun	nes (or 5 gallons (pH, temp., cond.)
HAND PUN SUBMERS BAILER OTHER	MP SIBLE PUMP		x	X		* Oil/wat		e probe use		for NAPL	s; MLE = Meter L
CASING	DIAMETER	(D _c): 2.0	0	→ D _c	—	DATE OF	SAMPLING:			;	3/1/2006
DEPTH T WATER		4.4	o <u>\psi</u>		GROUND (S)	WEATHE TAGGED	R: WATER LEV	/ELS FROM	— ТОС:	4	.40 / 4.40
NAPL:		n.a	* -0.21			TAGGED	WELL DEPT	H FROM TO	C:		20.7
NAPL TH	IICKNESS:	n.a		h l	H	PURGE \	OLUME (3 C	ASING VOL	JMES):	7.	.6 gallons
SCREEN TOP:	DEPTH:	5.0			TDc		O WATER FO	OR 80% REC	HARGE:	7.52	ft. below TOC 15:55
вотто	DM:	20.	.0	<u> </u>	<u> </u>		O WATER A	T TIME OF S	AMPI ING:	5 11 1	ft. below TOC
TOTAL D	EPTH (TD _c	20.2	20		SCREEN INTERVAL		ANCE OF SA		LIIV <u>O.</u>		ghtly cloudy
Diameters in	n (inches) : D	epths in (feet)			(15.0 ft.)	LABORA					tical Laboratory, Inc.
ONE CASI [TD _c - H] [3	NG VOLUME 3.14 (D _C / 2) ²]	: [7.48 gal/ft³]:	2.54 gallor	ns E			IN OF CUST	ODY FORM	FOR ANAL		
	PURGIN	IG DATA			JLATIVE REMOVED		WATER	CHARACTE	RISTICS		COMMENTS
DATE	TII BEGIN	FINISH	WATER REMOVED (GAL)	GAL	CASING VOLUMES	рН	CONDUC- TIVITY (mmhos/cm)	TURBIDITY (NTU)	TEMPER- ATURE (°C)	DISSOLVED OXYGEN (ppm)	
3/1/06	15:36	15:39	3	3	1.18	7.41	1.260	*MLE	17.3	0.63	
3/1/06	15:39	15:41	2.5	5.5	2.16	7.32	1.260	571	17.9	0.44	
3/1/06	15:41	15:43	2.2	7.7	3.03	7.31	1.260	140	18.0	0.46	
7											

PURGING METHOD AMPLIOD BALLER OTHER CASING DIAMETER (Dc): 2.0 DEPTH TO: WATER (h): 3.71 NAPL: n.a.* 0.38 NAPL THICKNESS: n.a.* SCREEN DEPTH: TOP: 9.0 BOTTOM: 19.0 TOTAL DEPTH (TDc): 19.00 Diameters in (inches): Depths in (feet) ONE CASING VOLUME: [TDc, -H] [3.14 (Dc, -Y 2)^2] [7.48 gallnt²]: 2.43 gallons PURGING CRITERIA Minimum of 3 wetted casing volumes (or 5 gallons min for 2" dia. wells), until water parameters (pH, temp., cond.) have stabiliz (±10%), or until dry. REMARKS * Oil/water interface probe used to check for NAPLs. DATE OF SAMPLING: 3/1/2006 WEATHER: Cloudy TAGGED WATER LEVELS FROM TOC: 3.71 / 3.71 TAGGED WATER LEVELS FROM TOC: 17.53 PURGE VOLUME (3 CASING VOLUMES): 7.3 gallons DEPTH TO WATER FOR 80% RECHARGE: 6.69 ft. below TOC TIME OF SAMPLING: 14:10 DEPTH TO WATER AT TIME OF SAMPLING: 4.35 ft. below TOC APPEARANCE OF SAMPLE: Very cloudy LABORATORY: Analytical Sciences SEE CHAIN OF CUSTODY FORM FOR ANALYTICAL INFORMATION.		S E N	IGII	NEEF	RS		20	PURGE 006 - 1st Qu	arter	RD		WELL NUMBER MW- 1
HAND PUMP SUBMERSIBLE PUMP X BAILER CHIPS, COMPANDE CASING FOR A PLS.	PROJECT	Ghilo	tti Constr	uction Cor	mpany					Ghilotti Av		RECORDED BY Rick Erdman
CASING DIAMETER (Dc): 2.0 DEPTH TO: WATER (h): 3.71 NAPL: n.a.* 0.38 NAPL THICKNESS: n.a.* 19.0 BOTTOM: 19.0 TOTAL DEPTH (TDc): 19.00 DIAMEDIA (Incomplete in (feet)) ONE CASING VOLUME: ITDC - HI (3.14 (Dc. / 27) [7.48 gal/h²]: 2.43 gallons CUMULATIVE TOTAL REMOVED DATE OF SAMPLING: 3/1/2006 WEATHER: Cloudy TAGGED WATER LEVELS FROM TOC: 3.71 / 3.71 TAGGED WATER LEVELS FROM TOC: 17.53 PURGE VOLUME (3 CASING VOLUMES): 7.3 gallons DEPTH TO WATER FOR 80% RECHARGE: 6.69 ft. below TOC TIME OF SAMPLING: 14.10 DEPTH TO WATER AT TIME OF SAMPLING: 4.35 ft. below TOC APPEARANCE OF SAMPLE: Very cloudy LABORATORY: Analytical Sciences SEE CHAIN OF CUSTODY FORM FOR ANALYTICAL INFORMATION. PURGING DATA TIME WATER COMMULATIVE TOTAL REMOVED DATE BEGIN FINISH (GAL) 3/1/06 13:50 13:53 3 5 2.05 7.06 1.110 35 19.2 0.51 3/1/06 13:53 13:55 2 7 2.88 7.05 1.100 21 19.3 0.59	SUBMERS BAILER			THOD	METHOL		for 2" dia (±10%), o	. wells), unt or until dry.	til water pa	rameters (pH, temp., o	s (or 5 gallons minimu cond.) have stabilized
ONE CASING VOLUME: [TDc - H] [3.14 (Dc / 2)^2] [7.48 gal/ft]: 2.43 gallons	CASING DEPTH T WATEI NAPL: NAPL TH SCREEN TOP: BOTTO	TO: R (h): ICKNESS: DEPTH: DM: DEPTH (TD _C	3.7 n.a n.a 9.0 19.	11	h	GROUND (S) SURFACE (S) H TD _C SCREEN INTERVAL	WEATHE TAGGED TAGGED PURGE V DEPTH T TIME OF DEPTH T APPEARA	R: WATER LEV WELL DEPT OLUME (3 C. O WATER FO SAMPLING: O WATER A	TH FROM TO ASING VOLU OR 80% REC	C: JMES): CHARGE:	3 7. 6.69 f 4.35 f Ve	Cloudy .71 / 3.71 .77.53 3 gallons it. below TOC .14:10 it. below TOC ery cloudy
TIME				2.43 gallor	1				ODY FORM I	OR ANALY		
3/1/06 13:50 13:53 3 5 2.05 7.06 1.110 35 19.2 0.51 3/1/06 13:53 13:55 2 7 2.88 7.05 1.100 21 19.3 0.59	DATE	TIN	ИE	REMOVED	TOTAL F	CASING	рН	CONDUC- TIVITY	TURBIDITY	TEMPER- ATURE	OXYGEN	COMMENTS
3/1/06 13:53 13:55 2 7 2.88 7.05 1.100 21 19.3 0.59	3/1/06	13:48	13:50	2	2	0.82	7.06	1.110	67	19.0	0.43	
	3/1/06	13:50	13:53	3	5	2.05	7.06	1.110	35	19.2	0.51	
	3/1/00	15.55	13.33			2.00	7.03	1.100	21	17.3	0.39	

	S E N	I G I I	NEEF	R S		20	PURGE 006 - 1st Qu	ıarter	RD		WELL NUMBER MW- 2
PROJECT	Ghilot	tti Constr	uction Cor	mpany		JOB NUMBE. 01203	R 3312.00	SITE 246 (Ghilotti Av		RECORDED BY Jose Carrillo
HAND PUN		PUR MET	GING THOD	SAMPLIN METHOL		(±10%), (RITERIA Min. wells), untor until dry.	til water pa	rameters (pH, temp.,	es (or 5 gallons minimu cond.) have stabilized
BAILER OTHER				X		Onwat	er mierrace	probe used	i to check	ioi NALLS.	
CASING DEPTH T	DIAMETER	(D _c):2.0)	→ D _c		DATE OF	SAMPLING:			:	2/7/2006 Clear
WATE		4.1	1 🔻		SURFACE (S)		WATER LEV	ELS FROM	TOC:	4	.11 / 4.11
NAPL:		n.a	* -0.94	h			WELL DEPT				16.2
NAPL TH	ICKNESS:	n.a	.*		 H	PURGE V	OLUME (3 C	ASING VOLU	JMES):	5.	9 gallons
SCREEN	DEPTH:			h S			O WATER FO				ft. below TOC
TOP:		7.0	<u> </u>		TD_{c}	TIME OF	SAMPLING:				15:50
ВОТТО	OM:	17.	.0	<u> </u>	: -▼	DEPTH T	O WATER A	T TIME OF S	AMPLING:	5.11	ft. below TOC
TOTAL D	EPTH (TD _c): 17.0	00		SCREEN INTERVAL		ANCE OF SAM			-	Clear
Diameters in	n (inches) : De	epths in (feet)		[==	(10.0 ft.)	LABORA ⁻	TORY:			Analy	tical Sciences
	NG VOLUME: 3.14 (D _c / 2) ²]		1.95 gallor	ns		SEE CHA	IN OF CUSTO	ODY FORM I	FOR ANALY		
	PURGIN	G DATA			JLATIVE REMOVED		WATER	CHARACTE	ERISTICS		COMMENTS
DATE	BEGIN	FINISH	WATER REMOVED (GAL)	GAL	CASING VOLUMES	рН	CONDUC- TIVITY (mmhos/cm)	TURBIDITY (NTU)	TEMPER- ATURE (°C)	DISSOLVED OXYGEN (ppm)	
2/7/06	15:25	15:28	2	2	1.03	4.61	1.500	526	17.3	1.02	
2/7/06	15:28	15:31	2	4	2.05	4.63	1.480	434	17.6	0.92	
2/7/06	15:31	15:34	2	6	3.08	4.70	1.490	543	17.8	0.66	
							1				1

	SEN	I G I N	NEEF	R S		20	PURGE 006 - 1st Qu	ıarter	RD		WELL NUMBER MW- 3
PROJECT	Ghilo	tti Constri	uction Cor	npanv		JOB NUMBE. 01203	R 312.00	SITE 246 (Ghilotti Av		RECORDED BY Jose Carrillo
HAND PUI SUBMERS BAILER		PUR MET	GING THOD	SAMPLIN METHOL		(±10%), (RITERIA Min. wells), untor until dry.	til water pa	rameters (pH, temp., o	s (or 5 gallons minimu cond.) have stabilized
OTHER					<u> </u>						
CASING DEPTH 1 WATE		(D _c): 2.0		→ D _C	GROUND (FM)	WEATHE			_		2/7/2006 Clear
NAPL:	, ,	n.a	-0.39	h			WATER LEV			3	.84 / 3.84 17.81
SCREEN TOP:	DEPTH:	n.a 9.(H TD _c	DEPTH T	OLUME (3 C. O WATER FO		· —		2 gallons ft. below TOC
BOTTO TOTAL D	OM: DEPTH (TD _o			<u>▼</u> <u>▼</u>	SCREEN INTERVAL	DEPTH T	SAMPLING: O WATER A ^T ANCE OF SAI		AMPLIN <u>G:</u>	7.18 f	12:05 ft. below TOC Clear
ONE CASI	n (inches) : De NG VOLUME 3.14 (D _C / 2) ²]	:	2.41 galloi	ns	(10.0 ft.)	LABORA ⁻			OR ANALY		tical Sciences
	PURGIN	G DATA			JLATIVE REMOVED			CHARACTE			COMMENTS
DATE	TIN	/IE FINISH	WATER REMOVED (GAL)	GAL	CASING VOLUMES	рН	CONDUC- TIVITY (mmhos/cm)	TURBIDITY (NTU)	TEMPER- ATURE (°C)	DISSOLVED OXYGEN (ppm)	
2/7/06	11:30	11:33	2	2	0.83	6.93	1.240	423	17.3	1.90	
2/7/06	11:33	11:36	2	4	1.66	6.80	0.964	346	17.2	0.96	
2/7/06	11:36	11:40	2	6	2.49	6.71	0.970	302	17.7	0.68	
2/7/06	11:40	11:43	1	7	2.90	6.52	0.963	236	18.1	0.50	
			1							1	<u> </u>

	S E N	I G I 1	NEEF	RS		20	PURGE 006 - 1st Qu	ıarter	RD		WELL NUMBER MW-04
PROJECT	Chilo	tti Constr	uction Cor	nnany		JOB NUMBE	R 3312.00	SITE 246 (Ghilotti Av		RECORDED BY Jose Carrillo
	Gillo										es (or 5 gallons minimur
HAND PUI	MP		GING PHOD	SAMPLIN METHOL		for 2" dia	a. wells), unt or until dry.	til water pa	rameters (pH, temp.,	cond.) have stabilized
SUBMERS BAILER OTHER	SIBLE PUMP		<u>X</u>	X		* Oil/wat	er interface l, i.e. >999 N	probe used NTU's)	l to check t	for NAPLs;	MLE = Meter Limit
CASING	DIAMETER	(D _c):2.0)	s I D		DATE OF	SAMPLING:				2/7/2006
DEPTH 1	ГО:		1	\rightarrow D _C		WEATHE	:R:				Clear
WATE	R (h):	2.8	9 🔻	<u>一</u> 路	SURFACE (S)	TAGGED	WATER LEV	/ELS FROM	TOC:	2	2.89 / 2.89
NAPL:		n.a	* T -0.44	h		TAGGED	WELL DEPT	H FROM TO	C:		19.11
NAPL TH	IICKNESS:	n.a	.*		3		OLUME (3 C			8	.2 gallons
SCREEN	I DEPTH:			h S	H		O WATER FO				ft. below TOC
TOP:		5.1	<u> </u>	1	TDc			UR 60% REC	DHARGE.	0.24	
вотто	OM:	20.	1 -	<u>* *</u>	<u> </u>		SAMPLING:				14:35
TOTAL D	DEPTH (TD _c	20.1	10	==	SCREEN	DEPTH T	O WATER A	T TIME OF S	AMPLIN <u>G:</u>	5.59	ft. below TOC
	n (inches) : De			1	INTERVAL (15.0 ft.)	APPEARA	ANCE OF SAI	MPLE:		V	ery cloudy
	ING VOLUME	. , ,			<u> </u>	LABORA ⁻	TORY:			Analy	rtical Sciences
	3.14 (D _c / 2) ²]		2.74 gallor	ns		SEE CHA	IN OF CUST	ODY FORM I	FOR ANALY	TICAL INFO	RMATION.
	PURGIN	IG DATA			JLATIVE REMOVED		WATER	CHARACTE	ERISTICS		COMMENTS
DATE	TIN	ME FINISH	WATER REMOVED (GAL)	GAL	CASING VOLUMES	рН	CONDUC- TIVITY (mmhos/cm)	TURBIDITY (NTU)	TEMPER- ATURE (°C)	DISSOLVED OXYGEN (ppm)	
2/7/06	14:05	14:08	2	2	0.73	5.22	1.310	*MLE	18.2	0.96	
		14:08	2	4				*MLE		0.96	
2/7/06	14:08		_	-	1.46	5.12	1.240		19.5	-	
2/7/06	14:12	14:16	2	6	2.19	5.03	1.240	*MLE	19.7	0.70	
2/7/06	14:16	14:20	2	8	2.92	4.97	1.230	752	19.9	0.61	
					1	1					
					+						
					+						
				<u> </u>	-						

ſ	SC	S F N	IGIN	N E E R) C		WELL I	PURGE	RECOF	RD		WELL NUMBER
								06 - 1st Qu				MW-05
	PROJECT	Ghilo	tti Constrı	action Con	npany		JOB NUMBEI 01203	312.00	SITE 246 (Ghilotti Av		RECORDED BY Rick Erdman
ŀ			PUR	GING	SAMPLING	\overline{G}	PURGING CR	TITERIA Mi	nimum of 3	wetted cas	sing volume	s (or 5 gallons minimum
			MET		METHOL			. wells), unt r until dry.		rameters (_]	oH, temp., c	ond.) have stabilized
	HAND PUN						REMARKS	Tunin ary.				
	SUBMERS BAILER	IBLE PUMP		<u> </u>	X	_	* Oil/wate	er interface	probe used	to check f	or NAPLs;	MLE = Meter Limit
	OTHER				A		Exceeded	, i.e. >999 N	(TU's)			
-	CASING I	DIAMETER	(D _c): 2.0)			DATE OF	SAMPLING:			3	3/1/2006
	DEPTH T		(=0)-		\rightarrow D _C	⋖ − GROUND	WEATHE					Cloudy
	WATER		4.4	8 👢	<u> </u>	GROUND SURFACE (S)		WATER LEV	FLS FROM	LOC.		48 / 4.48
	NAPL:		n.a.	<u>*</u> -0.81	h			WELL DEPT				19.17
	NAPL TH	ICKNESS:	n.a.	*				OLUME (3 C			7	3 gallons
	SCREEN	DEPTH:			h 🐧 .	H 		O WATER FO		· · —		t. below TOC
	TOP:		5.2	2	} _ !	$TD_{\rm C}$		SAMPLING:	311 00 70 TALC	TIAROL.	7.401	15:00
	вотто	DM:	20.	2	ᆂᆝ┊┸┆	<u> </u>		O WATER A			4 FO f	t. below TOC
	TOTAL D	EPTH (TD _c	.): 20.2	20		SCREEN INTERVAL				AMPLING.		
	Diameters in	(inches) : De	epths in (feet)			(15.0 ft.)		NCE OF SAM	VIPLE:			htly cloudy
		NG VOLUME		2.43 gallor		<u> </u>	LABORAT					ical Sciences
ŀ	[1D _C - 11][3	.14 (D _C / 2)]	[7.40 gai/it].	2.43 yallol	_	U ATI\ /E	SEE CHA	IN OF CUSTO	ODY FORM I	OR ANALY	TICAL INFOR	RMATION.
		PURGIN	G DATA			ILATIVE REMOVED		WATER	CHARACTE 	RISTICS		COMMENTS
		TIM	ИE	WATER		CASING		CONDUC-	TURBIDITY	TEMPER-	DISSOLVED	
	DATE	BEGIN	FINISH	REMOVED (GAL)	GAL	VOLUMES	pН	TIVITY (mmhos/cm)	(NTU)	ATURE (°C)	OXYGEN (ppm)	
ľ	3/1/06	14:42	14:44	2	2	0.82	7.07	0.627	*MLE	17.9	0.39	
	3/1/06	14:44	14:47	3	5	2.05	6.89	0.627	528	18.3	0.24	
	3/1/06	14:47	14:49	2.2	7.2	2.96	6.87	0.630	160	18.4	0.21	
90												
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S	C :	EN	G I	NEEF	R S			PURGE	_	RD		WELL NUMBER MW-06
PROJ							JOB NUMBER	006 - 1st Qu	SITE			RECORDED BY
		Ghilo	tti Constr	uction Cor	npany		01203	312.00	246 (Ghilotti Av	enue	Jose Carrillo
	ND PUN BMERS	1P IBLE PUMP	MET	GING CHOD	SAMPLING METHOD		(±10%), o	. wells), unt or until dry.	til water pa	rameters (pH, temp., o	s (or 5 gallons minimum cond.) have stabilized
	ILER HER				X		* Oil/wate Exceeded	er interface , i.e. >999 N	probe used TU's).	to check f	for NAPLs;	MLE = Meter Limit
CA	SING [DIAMETER	(D _c): 2.0)	15.1		DATE OF	SAMPLING:			2	2/7/2006
DE	PTH T	O:		T	\rightarrow D _c	GROUND (S)	WEATHE	R:				Clear
\	WATER	R (h):	5.2	8 4		SURFACE A	TAGGED	WATER LEV	ELS FROM	тос:	5	.28 / 5.28
1	NAPL:		n.a	·* -0.59		₹	TAGGED	WELL DEPT	H FROM TO	C:		19.75
		CKNESS:	n.a		h h	H	PURGE V	OLUME (3 C	ASING VOLU	JMES):	7.	1 gallons
	REEN TOP:	DEPTH:	5.3	2		TD_{c}	DEPTH T	O WATER FO	OR 80% REC	HARGE:	8.17 f	t. below TOC
	гог. Вотто	ιN.4÷	20.		¥∥¥	. TDc	TIME OF	SAMPLING:				16:40
		⁄wi. EPTH (TD _∈	-			SCREEN	DEPTH T	O WATER A	T TIME OF S	AMPLIN <u>G:</u>	8.01 f	t. below TOC
		(inches) : De		<u> </u>		INTERVAL (15.0 ft.)	APPEARA	ANCE OF SAI	MPLE:		Ve	ery cloudy
		NG VOLUME					LABORAT	TORY:			Analy	tical Sciences
				2.35 gallor	i		SEE CHA	IN OF CUST	ODY FORM I	OR ANALY	TICAL INFOR	RMATION.
		PURGIN	IG DATA			LATIVE REMOVED		WATER	CHARACTE	RISTICS		COMMENTS
DA	ATE -	BEGIN	FINISH	WATER REMOVED (GAL)	GAL	CASING VOLUMES	рН	CONDUC- TIVITY (mmhos/cm)	TURBIDITY (NTU)	TEMPER- ATURE (°C)	DISSOLVED OXYGEN (ppm)	
2/7	7/06	16:10	16:14	2	2	0.85	4.71	1.000	*MLE	18.9	1.23	
2/7	7/06	16:14	16:16	2	4	1.70	7.69	1.050	*MLE	18.6	0.69	
2/7	7/06	16:16	16:20	2	6	2.55	4.68	1.030	*MLE	18.6	0.76	
2/7	7/06	16:20	16:23	1	7	2.97	4.67	1.040	*MLE	18.7	0.67	
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1203												
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S	CS E	NGII	NEEF	R S			PURGE 006 - 1st Qu	_	RD		WELL NUMBER MW-07
PROJEC		att: Camatu	wation Con			JOB NUMBER	R 312.00	SITE	Ghilotti Av		RECORDED BY Jose Carrillo
	Gilli	otti Constr				PURGING CK					s (or 5 gallons minimum
HAND	PUMP		PGING PHOD	SAMPLING METHOD		for 2" dia	wells), unto	til water pa	rameters (pH, temp., o	cond.) have stabilized
SUBMI BAILER OTHER			X	X		* Oil/wate	er interface , i.e. >999 N	probe used VTU's).	l to check f	or NAPLs;	MLE = Meter Limit
CASIN	NG DIAMETE	R (D _c):2.0	0	→ D _c	←	DATE OF	SAMPLING:		_	:	2/7/2006
	H TO:	4.5	\		GROUND (S)	WEATHE	R:				Clear
	ATER (h):	4.5				TAGGED	WATER LEV	'ELS FROM	TOC:	4	.51 / 4.51
NAF		n.a	-0.36		}	TAGGED	WELL DEPT	H FROM TO	C:		20
	. THICKNESS EEN DEPTH:	. <u>n.a</u>		h	Н	PURGE V	OLUME (3 C	ASING VOLU	JMES):	7.	6 gallons
TOI		5.4	4		$\cdot \mid TD_{C}$	DEPTH T	O WATER FO	OR 80% REC	HARGE:	7.61 f	t. below TOC
BO.	TTOM:	20	 .4 -	<u> </u>	<u> </u>	TIME OF	SAMPLING:				15:01
ТОТА	L DEPTH (T	O _c): 20.4	40		SCREEN	DEPTH T	O WATER A	T TIME OF S	AMPLING:		t. below TOC
Diamete	ers in (inches) : I	Depths in (feet)			(15.0 ft.)	APPEARA	ANCE OF SAI	MPLE:		Ve	ery cloudy
ONE C	CASING VOLUM	E:				LABORAT	TORY:			Analy	tical Sciences
[TD _c - I	H] [3.14 (D _C / 2)] [7.48 gal/ft³]:	2.53 gallo	<u> </u>	, ATD /E	SEE CHA	IN OF CUST	ODY FORM F	OR ANALY	TICAL INFOR	rmation.
	PURGI	NG DATA			LATIVE REMOVED		WATER	CHARACTE	RISTICS		COMMENTS
DATE		FINISH	WATER REMOVED (GAL)	GAL	CASING VOLUMES	pН	CONDUC- TIVITY (mmhos/cm)	TURBIDITY (NTU)	TEMPER- ATURE (°C)	DISSOLVED OXYGEN (ppm)	
2/7/00	6 14:45	14:48	2	2	0.79	4.61	1.640	*MLE	18.5	0.98	
2/7/00	6 14:48	14:51	2	4	1.58	4.56	4.620	*MLE	19.2	0.77	
2/7/06	6 14:51	14:53	2	6	2.37	4.58	1.620	*MLE	19.4	0.92	
2/7/00	6 14:53	14:57	2	8	3.16	4.59	1.610	*MLE	19.5	0.82	
900											
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S C	SEN	G 1	NEEF	RS			PURGE 006 - 1st Qu		RD		WELL NUMBER MW-08 RECORDED BY
FROSECI	Ghilo	tti Constri	uction Cor	npany			312.00		Ghilotti Av		Jose Carrillo
		PUR MET	GING HOD	SAMPLING METHOD	<u> </u>	for 2" dia (±10%), o	ı. wells), unt or until dry.	til water pa	rameters (pH, temp.,	es (or 5 gallons minimum cond.) have stabilized MLE = Meter Limit
BAILER OTHER				X	_	Exceeded	, i.e. >999 N	TU's).			
CASING	DIAMETER	(D _c):2.0)	. 15 1		DATE OF	SAMPLING:			:	2/7/2006
DEPTH 1	ГО:			\rightarrow D _c	GROUND (S)	WEATHE	R:				Clear
WATE	R (h):	3.6	<u> 5</u>			TAGGED	WATER LEV	ELS FROM	TOC:	3	.65 / 3.65
NAPL:		n.a	·* -0.29			TAGGED	WELL DEPT	H FROM TO	 C:		20
NAPL TH	IICKNESS:	n.a		1 13 1	H	PURGE V	OLUME (3 C	ASING VOLU	JMES)·	8	0 gallons
SCREEN	DEPTH:			h 🖔 🖟	П		O WATER FO				ft. below TOC
TOP:		5.3	3		TD_{C}		SAMPLING:	JK 00 /6 INEC	I IANGL.	0.92	
вотто	OM:	20.	3	<u>♥</u>] ₹	<u> ₩</u>						12:47
TOTAL D	EPTH (TD _c	;): 20.3	30	==	SCREEN		O WATER A		AMPLING:	6.89	ft. below TOC
Diameters i	n (inches) : De	epths in (feet)			(15.0 ft.)	APPEARA	ANCE OF SAI	MPLE:			Cloudy
ONE CASI	NG VOLUME	:			<u> </u>	LABORAT	TORY:			Analy	tical Sciences
	3.14 (D _C / 2) ²]		2.67 gallor	_	J ATD (E	SEE CHA	IN OF CUSTO	ODY FORM F	FOR ANALY	TICAL INFO	rmation.
		IG DATA			LATIVE REMOVED		WATER	CHARACTE	RISTICS		COMMENTS
DATE	BEGIN	ME FINISH	WATER REMOVED (GAL)	GAL	CASING VOLUMES	pН	CONDUC- TIVITY (mmhos/cm)	TURBIDITY (NTU)	TEMPER- ATURE (°C)	DISSOLVED OXYGEN (ppm)	
2/7/06	12:15	12:18	2	2	0.75	4.96	1.680	*MLE	18.0	1.36	
2/7/06	12:18	12:21	2	4	1.50	5.04	1.680	*MLE	18.3	0.65	
2/7/06	12:21	12:24	2	6	2.25	4.87	1.710	*MLE	18.7	1.16	
2/7/06	12:24	12:27	2	8	3.00	4.88	1.700	*MLE	18.9	1.04	
2///00	12.21	12.27	_	-	2.00	1.00	1.700	IVIEE	10.7	1.01	
-											ļ
							1			1	

		S E N	IGI1	NEEF	R S		20	PURGE 006 - 1st Qu	ıarter	RD		WELL NUMBER MW-09
PR	ROJECT	Ghilo	tti Constri	uction Cor	npany		JOB NUMBER 01203	312.00	SITE 246 (Ghilotti Av		RECORDED BY Jose Carrillo
S E	HAND PUN SUBMERS BAILER OTHER		PUR MET	GING CHOD	SAMPLIN METHOL		(±10%), o	. wells), unt or until dry.	til water pa	rameters (pH, temp., o	es (or 5 gallons minimum cond.) have stabilized MLE = Meter Limit
11 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	CASING I DEPTH T WATEI NAPL: NAPL TH SCREEN TOP: BOTTO TOTAL D Diameters in	R (h): ICKNESS: DEPTH: DM: EPTH (TDc n (inches): De	2.8 n.a n.a 5.3 20. 20.sepths in (feet)	4 * -0.25	h	GROUND (S) SURFACE (S) H TD _C SCREEN INTERVAL (15.0 ft.)	WEATHE TAGGED TAGGED PURGE V DEPTH T TIME OF DEPTH T APPEARA LABORAT	WATER LEV WELL DEPT OLUME (3 C. O WATER FO SAMPLING: O WATER A'	TH FROM TO ASING VOLU OR 80% REC T TIME OF S. MPLE:	C:	8. 6.281 6.431 Sliq Analy	2/7/2006 Clear .84 / 2.84 19.96 4 gallons ft. below TOC 13:10 ft. below TOC ghtly cloudy tical Sciences RMATION.
	DATE	PURGIN	G DATA ME FINISH	WATER REMOVED (GAL)		CASING VOLUMES	pН	WATER CONDUC- TIVITY (mmhos/cm)	CHARACTE TURBIDITY (NTU)	TEMPER- ATURE (°C)	DISSOLVED OXYGEN (ppm)	COMMENTS
H	2/7/06	13:05	13:06	3	3	1.07	5.30	1.150	*MLE	18.0	0.44	
\vdash	2/7/06	13:06	13:10	3	6	2.14	4.76	0.685	*MLE	18.2	1.01	
	2/7/06	13:10	13:14	3	9	3.20	4.74	0.695	*MLE	18.3	1.57	
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PURGING METHOD SMMPLING METHOD PURGING CRITERIA Minimum of 3 wetted casing volumes (or 5 gall for 2" dia. wells), until water parameters (pH, temp., cond.) have (±10%), or until dry. REMARKS *Oil/water interface probe used to check for NAPLs; MLE = M Exceeded, i.e. >999 NTU's). DATE OF SAMPLING: WATER (h): 1.a.* 1.	W-10
PURGING SAMPLING METHOD SAMPLING METHOD METHO	^y Carrillo
HAND PUMP SUBMERSIBLE PUMP X	
SUBMERSIBLE PUMP BAILER OTHER	stabilized
DEPTH TO: WATER (h): 2.56 WEATHER: TAGGED WATER LEVELS FROM TOC: 2.56 / 2.56 2.56	eter Limit
WATER (h): 2.56	
NAPL:	
NAPL THICKNESS: n.a.* h H PURGE VOLUME (3 CASING VOLUMES): 8.5 gallons	
NAPL THICKNESS: n.a.* h H PURGE VOLUME (3 CASING VOLUMES): 8.5 gallons	
DEPTH TO WATER FOR 80% RECHARGE: 6.05 ft. below TOC TIME OF SAMPLING: 13:50	
TOP:	
BOTTOM: 20.5 TOTAL DEPTH (TDc): 20.50 DEPTH TO WATER AT TIME OF SAMPLING: 6.88 ft. below TOC APPEARANCE OF SAMPLE: Cloudy	<u>, </u>
TOTAL DEPTH (TDc): 20.50 SCREEN NITERVAL (15.0 ft.) SCREEN S	
NATER NATE	;
Analytical Science: Analytical Science: SEE CHAIN OF CUSTODY FORM FOR ANALYTICAL INFORMATION.	
TIME	s
DATE TIME WATER REMOVED WATER CHARACTERISTICS CONDUCTIVITY (MINIOS/CIN) TURBIDITY (NTU) TEMPER ATURE (°C) OXYGEN (ppm)	
DATE REMOVED GAL CASING VOLUMES PH TIVITY (mmhos/cm) TURBIDITY (NTU) ATURE (°C) OXYGEN (ppm)	MENTS
2/7/06 13:25 13:28 3 1.05 5.25 1.310 *MLE 16.7 0.71 2/7/06 13:28 13:31 3 6 2.11 5.44 1.320 702 16.8 0.73	
2/7/06 13:28 13:31 3 6 2.11 5.44 1.320 702 16.8 0.73	
2/7/06 13:31 13:35 3 9 3.16 5.50 1.310 781 17.0 0.89	
	_

	SEN	1 G I I	NEEF	R S		20	PURGE 006 - 1st Qu	ıarter	אט		WELL NUMBER MW-11
ROJECT	Ghilo	tti Constr	uction Co	mpany		JOB NUMBE 01203	3312.00	SITE 246 (Ghilotti Av		RECORDED BY Rick Erdman
		PUR	GING THOD	SAMPLIN METHO		PURGING C	RITERIA M i	inimum of . . wells), un	3 wetted c	asing volun	nes (or 5 gallons (pH, temp., cond.)
HAND PUN SUBMERS BAILER OTHER	MP SIBLE PUMP		x	X		REMARKS * Oil/wat		e probe use		for NAPL	s; MLE = Meter L
CASING	DIAMETER	(D _c): 2.0	0	→ D _c	—	DATE OF	SAMPLING:			;	3/1/2006
DEPTH T WATER		4.4	o <u>\psi</u>		GROUND (S)	WEATHE TAGGED	R: WATER LEV	/ELS FROM	— ТОС:	4	.40 / 4.40
NAPL:		n.a	* -0.21			TAGGED	WELL DEPT	H FROM TO	C:		20.7
NAPL TH	IICKNESS:	n.a		h l	H	PURGE \	OLUME (3 C	ASING VOL	JMES):	7.	.6 gallons
SCREEN TOP:	DEPTH:	5.0			TDc		O WATER FO	OR 80% REC	HARGE:	7.52	ft. below TOC 15:55
вотто	DM:	20.	.0	<u> </u>	<u> </u>		O WATER A	T TIME OF S	AMPI ING:	5 11 1	ft. below TOC
TOTAL D	EPTH (TD _c	20.2	20		SCREEN INTERVAL		ANCE OF SA		LIIV <u>O.</u>		ghtly cloudy
Diameters in	n (inches) : D	epths in (feet)			(15.0 ft.)	LABORA					tical Laboratory, Inc.
ONE CASI [TD _c - H] [3	NG VOLUME 3.14 (D _C / 2) ²]	: [7.48 gal/ft³]:	2.54 gallor	ns E			IN OF CUST	ODY FORM	FOR ANAL		
	PURGIN	IG DATA			JLATIVE REMOVED		WATER	CHARACTE	RISTICS		COMMENTS
DATE	TII BEGIN	FINISH	WATER REMOVED (GAL)	GAL	CASING VOLUMES	рН	CONDUC- TIVITY (mmhos/cm)	TURBIDITY (NTU)	TEMPER- ATURE (°C)	DISSOLVED OXYGEN (ppm)	
3/1/06	15:36	15:39	3	3	1.18	7.41	1.260	*MLE	17.3	0.63	
3/1/06	15:39	15:41	2.5	5.5	2.16	7.32	1.260	571	17.9	0.44	
3/1/06	15:41	15:43	2.2	7.7	3.03	7.31	1.260	140	18.0	0.46	
7											

Appendix D

Well Survey Report, dated March 28, 2006

MONITORING WELL ELEVATIONS & LOCATIONS

TO: SCS Engineers

RE: Ghilotti Construction

DATE: 3-28-06

Job # 05-1033-S

3645 Westwind Blvd. Santa Rosa, California 95403 246 Ghilotti Ave.

Santa Rosa, Ca. 95407

Rev.

Your Job No. 3312.00

On 3-27-05 this office continued a closed level loop with a Zeiss Ni2 Auto level based on BM Z-1396, a benchmark disk at the intersection of HWY 12 & Dutton Ave., elev. 152.30, NAVD 88, to a temporary benchmark at the project site. Subsequent level loops on 3-27-06 yielded the following monitoring well elevations. On that same date, employing a Leica GS 20, the following Latitude and Longitude were derived for the monitoring well.

MW#	Casing	Rim	Ground	Latitude	Longitude	Pos.Qlty/ft	Comments
MW-11	102.62	102.83	102.73	38.3857663	-122.7231640	1.31	(N)slot type

 \overline{KEY} (A) = Allen head bolt

(L) = Large bolt

(S) = Small bolt

(N)(E)(S)(W) = Direction

(B) = Black mark

(BN)=Black mark/notch

(M)=Missing/stripped bolt

(OC) = Outer casing

(HP) = High point

(P)= Pressure

REMARKS: Elevation tie to BM Z-1396 would lower all elevations on site 0.13 feet. Due to distance to benchmark (3-4 miles) Vertcon shifted values of previous work held as good. All wells recovered and observed were in good condition and were resealed as found.

TBM Established: A RR spike in utility pole near NW corner of parcel elev.102.53 NAVD 88

Steven H. Jacobs PLS 5296 Lic.

JACOBS LAND SURVEYING 1625 PERSEUS CT. PETALUMA CA. 94952 (707)782-0733

Appendix E

Analytical Sciences Report #6020914, dated February 23, 2006 Analytical Sciences Report #6022407, dated March 10, 2006 Analytical Sciences Report #6030213, dated March 15, 2006



February 23, 2006

Kevin Coker SCS Engineers 3645 Westwind Blvd Santa Rosa, CA 95403

Dear Kevin,

Enclosed you will find Analytical Sciences' final report 6020914 for your Ghilotti Construction project. An invoice for this work is enclosed.

Should you or your client have any questions regarding this report please contact me at your convenience. We appreciate you selecting Analytical Sciences for this work and look forward to serving your analytical chemistry needs on projects in the future.

Sincerely,

Analytical Sciences

Mark A. Valentini, Ph.D.

Laboratory Director



Report Date: February 23, 2006

Laboratory Report

Kevin Coker SCS Engineers 3645 Westwind Blvd Santa Rosa, CA 95403

Project Name: Ghilotti Construction 01203312.00

Lab Project: **6020914**

This 8 page report of analytical data has been reviewed and approved for release.

Mark A. Valentini, Ph.D.

Manh A. Valentini

Laboratory Director



Lab#	Sample ID	Compo	und Name		Result (ug/L)	RDL (ug/L)
6020914-01	MW-07	Tertiary	Butyl Alcohol (T	BA)	ND	12
		Methyl	tert-Butyl Ether (1	MTBE)	1.7	1.0
		Di-isop:	ropyl Ether (DIPE	E)	ND	1.0
		Ethyl te	ert-Butyl Ether (E)	ΓBE)	ND	1.0
				(TAME)	ND	1.0
Sur	Surrogates		Result (ug/L) % Recover		Acceptance Range	(%)
Dibromofluorom	ethane	19.7	98		70-130	
Toluene-d8		20.0	100		70-130	
4-Bromofluorobe	enzene	20.4	102		70-130	
Date Sampled: Date Received:	02/07/06 02/09/06		Date Analyzed: Method:	02/10/06 EPA 8260B	QC I	Batch: B000615

Lab#	Sample ID	Compo	und Name		Result (ug/L)	RDL (ug/L)	
6020914-02	MW-2	Tertiary	y Butyl Alcohol (T	TBA)	ND	12	
		Methyl	tert-Butyl Ether (1	MTBE)	7.8	1.0	
	Di-isopropyl Ether (DIPE)				ND	1.0	
		Ethyl te	ert-Butyl Ether (E7	ГВЕ)	ND	1.0	
		Tert-Ar	myl Methyl Ether ((TAME)	ND	1.0	
Sur	Surrogates		Result (ug/L) % Recove		Acceptance Range	(%)	
Dibromofluorom	ethane	19.8	99		70-130		
Toluene-d8		20.2	101		70-130		
4-Bromofluorobe	4-Bromofluorobenzene		103		70-130		
Date Sampled:	02/07/06		Date Analyzed:	02/10/06	QC I	Batch: B000615	
Date Received:	02/09/06		Method:	EPA 8260B			



Lab#	Sample ID	Compo	und Name		Result (ug/L)	RDL (ug/L)
6020914-03	MW-3	Tertiary	Butyl Alcohol (T	BA)	ND	12
		Methyl	tert-Butyl Ether (I	MTBE)	24	1.0
		Di-isopi	ropyl Ether (DIPE		ND	1.0
		Ethyl te	ert-Butyl Ether (ET	TBE)	ND	1.0
		Tert-An	nyl Methyl Ether (TAME)	ND	1.0
Sur	Surrogates		Result (ug/L) % Recover		Acceptance Ran	ge (%)
Dibromofluorom	ethane	19.9	100		70-130	
Toluene-d8		20.1	100		70-130	
4-Bromofluorobe	4-Bromofluorobenzene		102		70-130	
Date Sampled: Date Received:	02/07/06 02/09/06		Date Analyzed: Method:	02/11/06 EPA 8260B	Q	C Batch: B000615

Lab#	Sample ID	Compo	und Name		Result (ug/L)	RDL (ug/L)
6020914-04	MW-04	Tertiary	Butyl Alcohol (T	BA)	ND	12
		Methyl	tert-Butyl Ether (1	MTBE)	1.0	1.0
	Di-isopropyl Ether (DIPE)				ND	1.0
		Ethyl te	ert-Butyl Ether (E7	TBE)	ND	1.0
		Tert-Ar	myl Methyl Ether (TAME)	ND	1.0
Su	Surrogates		Result (ug/L) % Recove		Acceptance Range	(%)
Dibromofluorom	nethane	19.5	98		70-130	
Toluene-d8		20.2	101		70-130	
4-Bromofluorob	4-Bromofluorobenzene		102		70-130	
Date Sampled:	02/07/06		Date Analyzed:	02/10/06	QC	Batch: B000615
Date Received:	02/09/06		Method:	EPA 8260B		



Lab#	Sample ID	Compo	und Name		Result (ug/L)	RDL (ug/L)	
6020914-05	MW-06	Tertiary	Butyl Alcohol (TBA	.)	ND	12	
		Methyl	tert-Butyl Ether (MT)	BE)	ND	1.0	
		Di-isop	ropyl Ether (DIPE)	1	ND	1.0	
		Ethyl te	ert-Butyl Ether (ETBE		ND	1.0	
		Tert-An	myl Methyl Ether (TA	ME)	ND	1.0	
S	Surrogates		Result (ug/L) % Recovery		Acceptance Range (%)		
Dibromofluoro	nethane	19.6	98		70-130		
Toluene-d8		19.9	100		70-130		
4-Bromofluorol	oenzene	21.2	106		70-130		
Date Sampled:	02/07/06		Date Analyzed: 0	2/10/06	QC Bat	ch: B000615	
Date Received:	02/09/06		Method:	EPA 8260B			

Lab#	Sample ID	Compo	und Name		Result (ug/L)	RDL (ug/L)
6020914-06	MW-08	Tertiary	y Butyl Alcohol (T	TBA)	ND	12
		Methyl	tert-Butyl Ether (MTBE)	ND	1.0
		Di-isop	ropyl Ether (DIPE	E)	ND	1.0
		Ethyl te	ert-Butyl Ether (El	ГВЕ)	ND	1.0
		Tert-Ar	myl Methyl Ether ((TAME)	ND	1.0
Sur	Surrogates		% Recove	y Acceptance Range		%)
Dibromofluorom	ethane	19.9	100		70-130	
Toluene-d8		20.2	101		70-130	
4-Bromofluorobe	4-Bromofluorobenzene		102		70-130	
Date Sampled:	02/07/06		Date Analyzed:	02/10/06	QC Ba	atch: B000615
Date Received:	02/09/06		Method:	EPA 8260B		



Lab#	Sample ID	Compo	und Name		Result (ug/L)	RDL (ug/L)
6020914-07	MW-09	Tertiary	Butyl Alcohol (T	BA)	ND	12
		Methyl	tert-Butyl Ether (1	MTBE)	3.4	1.0
		Di-isopi	ropyl Ether (DIPE		ND	1.0
		Ethyl tert-Butyl Ether (ETBE) Tert-Amyl Methyl Ether (TAME)			ND	1.0
					ND	1.0
Su	Surrogates		Result (ug/L) % Recovery		Acceptance Range	e (%)
Dibromofluoron	nethane	19.7	98		70-130	
Toluene-d8		20.1	100		70-130	
4-Bromofluorob	4-Bromofluorobenzene		102		70-130	
Date Sampled:	02/07/06		Date Analyzed:	02/10/06	QC	C Batch: B000615
Date Received:	02/09/06		Method:	EPA 8260B		

Lab# Sam	ple ID Compo	ound Name		Result (ug/L)	RDL (ug/L)
6020914-08 N	Tertian	y Butyl Alcohol (T	BA)	ND	12
	Methy	l tert-Butyl Ether (N	MTBE)	28	1.0
	Di-isop	propyl Ether (DIPE)	ND	1.0
	Ethyl t	ert-Butyl Ether (ET	BE)	ND	1.0
	Tert-A	myl Methyl Ether (TAME)	ND	1.0
Surrogates	Result (ug/L)	Result (ug/L) % Recover		Acceptance Range	2 (%)
Dibromofluoromethane	19.9	100		70-130	
Toluene-d8	20.2	101		70-130	
4-Bromofluorobenzene	20.6	0.6 103		70-130	
Date Sampled: 02/07/06		Date Analyzed:	02/10/06	QC	Batch: B000615
Date Received: 02/09/06		Method:	EPA 8260B		



Lab#	Sample ID	Compo	und Name		Result (ug/L)	RDL (ug/L)	
6020914-09	DW-246	Tertiary	Butyl Alcohol (T	TBA)	ND	12	
		Methyl	tert-Butyl Ether (1	MTBE)	ND	1.0	
	Di-isopropyl Ether (DIPE)				ND	1.0	
		Ethyl te	ert-Butyl Ether (E)	ΓΒΕ)	ND	1.0	
		Tert-An	nyl Methyl Ether ((TAME)	ND	1.0	
S	Surrogates		Result (ug/L)		Acceptance Range (%)		
Dibromofluoro	methane	19.6	98		70-130		
Toluene-d8		20.0	100		70-130		
4-Bromofluorol	benzene	20.8	104		70-130		
Date Sampled:	02/07/06		Date Analyzed:	02/10/06	QC	Batch: B000615	
Date Received:	02/09/06		Method:	EPA 8260B			



Quality Assurance Report

Oxygenated Gasoline Additives in Water

Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
			Prepared	& Analyz	zed: 02/10)/06			
ND	12	ug/L							
ND	1.0	ug/L							
ND	1.0	ug/L							
ND	1.0	ug/L							
ND	1.0	ug/L							
18.7		ug/L	20.0		94	70-130			
19.1			20.0		96	70-130			
24.4		ug/L	20.0		122	70-130			
Matrix Spike (B000615-MS1) Source: 6020914-05			*		zed: 02/10				
		ug/L	25.0	ND	94				
	1.0	ug/L	25.0	ND	98	70-130			
-		ug/L	25.0	ND	96	70-130			
		ug/L	25.0	ND	96	70-130			
24.3	1.0	ug/L	25.0	ND	97	70-130			
19.3		ug/L	20.0		96	70-130			
19.9		ug/L	20.0		100	70-130			
21.1		ug/L	20.0		106	70-130			
Sc	ource: 6020914	I-05	Prepared	& Analyz	zed: 02/10)/06			
21.3	1.0	ug/L	25.0	ND	85	70-130	10	20	
22.6	1.0	ug/L	25.0	ND	90	70-130	9	20	
21.6	1.0	ug/L	25.0	ND	86	70-130	11	20	
22.2	1.0	ug/L	25.0	ND	89	70-130	8	20	
22.1	1.0	ug/L	25.0	ND	88	70-130	10	20	
19.4		ug/L	20.0		97	70-130			
20.0		-	20.0		100	70-130			
		٥.	20.0		105	70-130			
	ND ND ND ND ND ND 18.7 19.1 24.4 \$6 23.4 24.6 23.9 24.0 24.3 19.3 19.9 21.1 \$6 21.3 22.6 21.6 22.2 22.1	Result Limit ND 12 ND 1.0 ND 1.0 ND 1.0 ND 1.0 ND 1.0 18.7 19.1 24.4 Source: 6020914 23.4 1.0 24.6 1.0 23.9 1.0 24.0 1.0 24.3 1.0 19.3 19.9 21.1 Source: 6020914 21.3 1.0 22.6 1.0 21.6 1.0 22.2 1.0 22.1 1.0	ND	ND 12 ug/L ND 1.0 ug/L 20.0 19.1 ug/L 20.0 24.4 ug/L 20.0 Source: 6020914-05 Prepared 23.4 1.0 ug/L 25.0 24.6 1.0 ug/L 25.0 24.6 1.0 ug/L 25.0 24.0 1.0 ug/L 25.0 24.3 1.0 ug/L 25.0 24.3 1.0 ug/L 20.0 19.3 ug/L 20.0 24.3 1.0 ug/L 25.0 24.3 1.0 ug/L 25.0 25.0 21.1 ug/L 20.0 20.0 21.1 ug/L 25.0 21.6 1.0 ug/L 25.0 22.2 1.0 ug/L 25.0 22.1 1.0 ug/L 25.0 22.2 1.0 ug/L 25.0 22.3 1.0 ug/L 25.0 22.4 1.0 ug/L 25.0 22.5 1.0 ug/L 25.0 22.1 1.0 ug/L 25.0 22.2 1.0 ug/L 25.0 22.3 1.0 ug/L 25.0 22.4 1.0 ug/L 25.0 22.5 1.0 ug/L 25.0 22.5 1.0 ug/L 25.0 23.8 1.0 ug/L 25.0 24.8 1.0 ug/L 25.0 25.0 25.0 25.0 26.0 1.0 ug/L 25.0 27.0 1.0 ug/L 25.0 28.0 1.0 ug/L 25.0 29.0 1.0 ug/L 25.0 20.0 1.0 ug/L	Result Limit Units Level Result	Result Limit Units Level Result %REC	ND 12 ug/L ND 1.0 ug/L 20.0 96 70-130 24.4 ug/L 20.0 96 70-130 24.4 ug/L 25.0 ND 94 70-130 23.4 1.0 ug/L 25.0 ND 98 70-130 24.6 1.0 ug/L 25.0 ND 98 70-130 24.0 1.0 ug/L 25.0 ND 96 70-130 24.3 1.0 ug/L 25.0 ND 96 70-130 24.3 1.0 ug/L 25.0 ND 96 70-130 24.3 1.0 ug/L 25.0 ND 97 70-130 21.1 ug/L 20.0 100 70-130 21.1 ug/L 20.0 100 70-130 22.6 1.0 ug/L 25.0 ND 85 70-130 22.6 1.0 ug/L 25.0 ND 86 70-130 22.2 1.0 ug/L 25.0 ND 88 70-130 22.1 1.0 ug/L 25.0 ND 89 70-130 22.1 1.0 ug/L 25.0 ND 89 70-130 20.1 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1	ND	Result

Lab Project#: 6020914 CA Lab Accreditation #: 2303



Notes and Definitions

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

RPD Relative Percent Difference



Analytical Sciences P.O. Box 750336, Petaluma, CA 94975-0336 110 Liberty Street, Petaluma, CA 94952 (707) 769-3128

CHAIN OF CUSTODY

LAB PROJECT NUMBER:

MBER: 4020914

LAB SAMPLE # **%** TME 00 7 GLOBAL ID: T0609700354 \overline{c} COOLER TEMPERATURE DLIESS Than 12 GEOTRACKER EDF: ななって、大きな 9 4160201 2 9 06 DATE COMMENTS 423/06 * TBA USE PAGE_1_ Ghilotti Construction ၁၀၁ SAMPIC 01203312.00 TURNAROUND TIME (check one) 7 24 Hours 72 Hours NORMAL TOTAL LEAD SCS ENGINEERS PROJECT NAME: SCS ENGINEERS PROJECT NUMBER: CAM 17 METALS / PESTICIDES / PCB'S RECEIVED BY LABORATORY: DOT / H977 M 5520F / EPA 418.1M SEMI-VOLATILE
SEMISOCARBONS
OTS & STILE 5 DAYS MOBILE LAB 48 Hours SAME DAY **ANALYSIS** CHLORINATED OXYGENATED FUEL ADDITIVES RP 8260M × BTEX & OXYGENATES + PB SCAVENGERS + PB STRUERS SIGNATURES BILLING INFORMATION EPA 8260 Full List + Oxy / Fuel Additives Santa Rosa, CA 95407 Ghilotti Construction :: % 246 Ghilotti Ave EPA 8260 (FULL LIST) VOLATILE
VOLATILE 707-585-1221 TIME: TIME: TIME: MOTOR OIL M2108 A93 Stacey LEH DIESEL / EPA 8015M/8020 2/9/06 COMPANY NAME: PHONE#: X3T8/8A2/H9T CONTACT: ADDRESS: FAX#: PRESV. YES/NO YES CONT. DATE:: DATE:: DATE: 3 MATRIX CIO F ΓΙÓ CIO g LIQ CIQ **LIQ** 017 01:51 1 10 /L/V ADDRESS: 3645 WESTWIND BOULEVARD Ľ Jany Xtelleges SANTA ROSA, CA 95403 TIME <u>8</u> 95:51 90/1/2 30:21 ap/L/2 <u>و:</u> 2/1/00/13:10 757 27-100 14:35 1350 **CLIENT INFORMATION** DATE SAMPLED 40/1/2 B 2/1/2 2)7/06 77/05 COMPANY NAME: SCS ENGINEERS PHONE#: (707) 546-9461 (707) 544-5769 CONTACT: Kevin Coker MAY WAY CLIENT SAMPLE 1..D. WW-85-WW-C FAX#: RELINQUISHED BY: RELINQUISHED BY DW-246 **90-M**₩ MW-10 MW-09 MW-07 MW-04 MW-08 MW-3 MW-2 RECEIVED BY: RECEIVED BY: TEM 2 Ŧ



March 10, 2006

Kevin Coker SCS Engineers 3645 Westwind Blvd Santa Rosa, CA 95403

Dear Kevin,

Enclosed you will find Analytical Sciences' final report 6022407 for your Ghilotti Construction project. An invoice for this work is enclosed.

Should you or your client have any questions regarding this report please contact me at your convenience. We appreciate you selecting Analytical Sciences for this work and look forward to serving your analytical chemistry needs on projects in the future.

Sincerely,

Analytical Sciences

Mark A. Valentini, Ph.D.

Mark A. Valentini

Laboratory Director



Report Date: March 10, 2006

Laboratory Report

Kevin Coker SCS Engineers 3645 Westwind Blvd Santa Rosa, CA 95403

Project Name: Ghilotti Construction 01203312

Lab Project: **6022407**

This 8 page report of analytical data has been reviewed and approved for release.

Mark A. Valentini, Ph.D.

Mark A. Valentini

Laboratory Director



TPH Gasoline in Water

Lab#	Sample ID	Compound Name		Result (ug/L)	RDL (ug/L)
6022407-01	B-9	Gasoline		ND	50
Date Sampled: Date Received:	02/23/06 02/24/06	Date Analyzed: Method:	03/02/06 EPA 8015M	QC	E Batch: B000682

TPH Gasoline in Water

Lab#	Sample ID	Compound Name		Result (ug/L)	RDL (ug/L)
6022407-02	B-10	Gasoline		ND	50
Date Sampled:	02/23/06	Date Analyzed:	03/02/06	QC I	Batch: B000682
Date Received:	02/24/06	Method:	EPA 8015M		

TPH Gasoline in Water

Lab#	Sample ID	Compound Name		Result (ug/L)	RDL (ug/L)	
6022407-03	B-11	Gasoline	_	ND	50	_
Date Sampled:	02/23/06	Date Analyzed:	03/02/06	QC	Batch: B000682	
Date Received:	02/24/06	Method:	EPA 8015M			



Lab#	Sample ID	Compo	und Name		Result (ug/L)	RDL (ug/L)
6022407-01	B-9	Benzene	e		ND	1.0
		Toluene	;		ND	1.0
		Ethylbe	nzene		ND	1.0
		m,p-Xy	lene		ND	1.0
		o-Xylen	e		ND	1.0
		1,2-Dic	hloroethane (EDC	C)	ND	1.0
		1,2-Dib	romoethane (EDI	3)	ND	1.0
		Tertiary	Butyl Alcohol (7	ГВА)	ND	12
		Methyl	tert-Butyl Ether (MTBE)	ND	1.0
		Di-isopi	ropyl Ether (DIPE	Ε)	ND	1.0
		Ethyl te	rt-Butyl Ether (E	ГВЕ)	ND	1.0
		Tert-An	nyl Methyl Ether	(TAME)	ND	1.0
Su	rrogates	Result (ug/L)	% Recove	ery	Acceptance Range (9	<u>%)</u>
Dibromofluorom	nethane	20.5	102		70-130	
Toluene-d8		20.1	100		70-130	
4-Bromofluorob	enzene	14.7	74		70-130	
Date Sampled:	02/23/06		Date Analyzed:	02/28/06	QC Ba	tch: B000675
Date Received:	02/24/06		Method:	EPA 8260B		



Lab#	Sample ID	Compo	und Name		Result (ug/L)	RDL (ug/L)
6022407-02	B-10	Benzen	e		ND	1.0
		Toluene	2		ND	1.0
		Ethylbe	nzene		ND	1.0
		m,p-Xy	lene		ND	1.0
		o-Xylen	ie		ND	1.0
		1,2-Dic	hloroethane (EDC	C)	ND	1.0
		1,2-Dib	romoethane (EDI	3)	ND	1.0
		Tertiary	Butyl Alcohol (7	ГВА)	ND	12
		Methyl	tert-Butyl Ether (MTBE)	ND	1.0
		Di-isopi	ropyl Ether (DIPE	Ε)	ND	1.0
		Ethyl te	rt-Butyl Ether (E	ГВЕ)	ND	1.0
		Tert-An	nyl Methyl Ether	(TAME)	ND	1.0
Su	ırrogates	Result (ug/L)	% Recove	ery	Acceptance Range (%	%)
Dibromofluoron	nethane	20.4	102		70-130	
Toluene-d8		20.0	100		70-130	
4-Bromofluorob	enzene	14.6	73		70-130	
Date Sampled:	02/23/06		Date Analyzed:	02/28/06	QC Ba	atch: B000675
Date Received:	02/24/06		Method:	EPA 8260B		



Lab#	Sample ID	Compo	und Name		Result (ug/L)	RDL (ug/L)
6022407-03	B-11	Benzene	e		ND	1.0
		Toluene	2		ND	1.0
		Ethylbe	nzene		ND	1.0
		m,p-Xy	lene		ND	1.0
		o-Xylen	e		ND	1.0
		1,2-Dic	hloroethane (EDC	C)	ND	1.0
		1,2-Dib	romoethane (EDI	3)	ND	1.0
		Tertiary	Butyl Alcohol (7	ГВА)	ND	12
		Methyl	tert-Butyl Ether (MTBE)	ND	1.0
		Di-isopi	ropyl Ether (DIPI	Ε)	ND	1.0
		Ethyl te	rt-Butyl Ether (E'	ГВЕ)	ND	1.0
		Tert-An	nyl Methyl Ether	(TAME)	ND	1.0
Sur	rrogates	Result (ug/L)	% Recove	ery	Acceptance Range (9	%)
Dibromofluorom	ethane	20.5	102		70-130	
Toluene-d8		20.2	101		70-130	
4-Bromofluorobe	enzene	14.7	74		70-130	
Date Sampled:	02/23/06		Date Analyzed:	02/28/06	QC Ba	atch: B000675
Date Received:	02/24/06		Method:	EPA 8260B		



Quality Assurance Report

TPH Gasoline in Water

Analyte	Resul	Reporting t Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B000682 - EPA 5030 GC										
Blank (B000682-BLK1)				Prepared	: 02/28/06	Analyze	ed: 03/02/0)6		
Gasoline	ND	50	ug/L							
Matrix Spike (B000682-MS1)		Source: 6022404	1-02	Prepared	: 02/28/06	Analyze	ed: 03/02/0)6		
Benzene	10.4	0.50	ug/L	10.0	0.93	95	70-130			
Toluene	10.8	0.50	ug/L	10.0	0.68	101	70-130			
Ethylbenzene	10.5	0.50	ug/L	10.0	ND	105	70-130			
Xylenes	31.2	1.5	ug/L	30.0	ND	104	70-130			
Matrix Spike Dup (B000682-MSD1)		Source: 6022404	1-02	Prepared	: 02/28/06	Analyze	ed: 03/02/0)6		
Benzene	10.3	0.50	ug/L	10.0	0.93	94	70-130	1	20	
Toluene	10.6	0.50	ug/L	10.0	0.68	99	70-130	2	20	
Ethylbenzene	10.4	0.50	ug/L	10.0	ND	104	70-130	1	20	
Xylenes	30.9	1.5	ug/L	30.0	ND	103	70-130	1	20	

Lab Project#: 6022407 CA Lab Accreditation #: 2303



Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B000675 - EPA 5030 GC/MS										
Blank (B000675-BLK1)				Prepared	: 02/27/06	5 Analyze	ed: 02/28/0	06		
Benzene	ND	1.0	ug/L	*		•				
Toluene	ND	1.0	ug/L							
Ethylbenzene	ND	1.0	ug/L							
m,p-Xylene	ND	1.0	ug/L							
o-Xylene	ND	1.0	ug/L							
1,2-Dichloroethane (EDC)	ND	1.0	ug/L							
1,2-Dibromoethane (EDB)	ND	1.0	ug/L							
Tertiary Butyl Alcohol (TBA)	ND	12	ug/L							
Methyl tert-Butyl Ether (MTBE)	ND	1.0	ug/L							
Di-isopropyl Ether (DIPE)	ND	1.0	ug/L							
Ethyl tert-Butyl Ether (ETBE)	ND	1.0	ug/L							
Tert-Amyl Methyl Ether (TAME)	ND	1.0	ug/L							
Surrogate: Dibromofluoromethane	20.3		ug/L	20.0		102	70-130			
Surrogate: Toluene-d8	19.7		ug/L	20.0		98	70-130			
Surrogate: 4-Bromofluorobenzene	15.6		ug/L	20.0		78	70-130			
Matrix Spike (B000675-MS1)	So	ource: 6022705	5-01	Prepared	: 02/27/06	5 Analyze	ed: 02/28/0)6		
1,1-Dichloroethene (1,1-DCE)	19.9	1.0	ug/L	25.0	ND	80	70-130			
Benzene	23.2	1.0	ug/L	25.0	ND	93	70-130			
Trichloroethene (TCE)	23.4	1.0	ug/L	25.0	ND	94	70-130			
Toluene	24.2	1.0	ug/L	25.0	ND	97	70-130			
Chlorobenzene	23.5	1.0	ug/L	25.0	ND	94	70-130			
Surrogate: Dibromofluoromethane	20.0		ua/I	20.0		100	70-130			
Surrogate: Dibromojiuoromeinane Surrogate: Toluene-d8	20.0		ug/L ug/L	20.0		100	70-130 70-130			
Surrogate: 10tuene-48 Surrogate: 4-Bromofluorobenzene	14.8		ug/L ug/L	20.0		74	70-130 70-130			
Matrix Spike Dup (B000675-MSD1)		ource: 6022705			. 02/27/06		ed: 02/28/0)6		
1,1-Dichloroethene (1,1-DCE)	19.6	1.0	ug/L	25.0	ND	78	70-130	3	20	
Benzene	23.2	1.0	ug/L	25.0	ND	93	70-130	0	20	
Trichloroethene (TCE)	23.6	1.0	ug/L	25.0	ND	94	70-130	0	20	
Toluene	24.0	1.0	ug/L	25.0	ND	96	70-130	1	20	
Chlorobenzene	23.2	1.0	ug/L	25.0	ND	93	70-130	1	20	
Surrogate: Dibromofluoromethane	20.4		ug/L	20.0		102	70-130			
· ·	20.1		ug/L	20.0		100	70-130			
Surrogate: Toluene-d8	20.1		ug/L	20.0		100	70-150			

Lab Project#: 6022407 CA Lab Accreditation #: 2303



Notes and Definitions

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

RPD Relative Percent Difference



Analytical Sciences P.O. Box 750336, Petaluma, CA 94975-0336 110 Liberty Street, Petaluma, CA 94952 (707) 769-3128

CHAIN OF CUSTODY LAB PROJECT NUMBER:

GLOBAL ID: T0609700354 GEOTRACKER EDF: X Y COOLER TEMPERATURE Ghilotti Construction ၁၀၁ SCS ENGINEERS PROJECT NUMBER: 01203312.00 TURNAROUND TIME (check one) 24 Hours 72 Hours NORMAL SCS ENGINEERS PROJECT NAME: MOBILE LAB SAME DAY 48 Hours 5 DAYS BILLING INFORMATION Santa Rosa, CA 95407 COMPANY NAME: Ghilotti Construction CONTACT: Stacey MAGILL ADDRESS: 246 Ghilotti Ave PHONE#: 707-585-1221 FAX#: ADDRESS: 3645 WESTWIND BOULEVARD SANTA ROSA, CA 95403 **CLIENT INFORMATION** COMPANY NAME: SCS ENGINEERS FAX #: (707) 544-5769 PHONE#: (707) 546-9461 CONTACT: Kevin Coker

30/2/06 33:06	20	LIQ LIQ LIQ DATE:: 23 / DATE:: 23 / DATE:: 24 / DATE:



March 15, 2006

Kevin Coker SCS Engineers 3645 Westwind Blvd Santa Rosa, CA 95403

Dear Kevin,

Enclosed you will find Analytical Sciences' final report 6030213 for your Ghilotti Construction project. An invoice for this work is enclosed.

Should you or your client have any questions regarding this report please contact me at your convenience. We appreciate you selecting Analytical Sciences for this work and look forward to serving your analytical chemistry needs on projects in the future.

Sincerely,

Analytical Sciences

Mark A. Valentini, Ph.D.

Laboratory Director



Report Date: March 15, 2006

Laboratory Report

Kevin Coker SCS Engineers 3645 Westwind Blvd Santa Rosa, CA 95403

Project Name: Ghilotti Construction 01203312.00

Lab Project: **6030213**

This 7 page report of analytical data has been reviewed and approved for release.

Mark A. Valentini, Ph.D.

Manh A. Valentini

Laboratory Director



TPH Gasoline in Water

Lab#	Sample ID	Compound Name		Result (ug/L)	RDL (ug/L)
6030213-01	MW-1	Gasoline		ND	50
Date Sampled: Date Received:	03/01/06 03/02/06	Date Analyzed: Method:	03/05/06 EPA 8015M	QC	C Batch: B000706

TPH Gasoline in Water

Lab# 6030213-02	Sample ID MW-5	Compound Name Gasoline		Result (ug/L) ND	RDL (ug/L) 50
Date Sampled: Date Received:	03/01/06 03/02/06	Date Analyzed: Method:	03/05/06 EPA 8015M	QC.	Batch: B000706

TPH Gasoline in Water

Lab#	Sample ID	Compound Name		Result (ug/L)	RDL (ug/L)	
6030213-03	MW-11	Gasoline		ND	50	_
Date Sampled:	03/01/06	Date Analyzed:	03/05/06	QC	Batch: B000706	
Date Received:	03/02/06	Method:	EPA 8015M			

Lab Project#: 6030213



Lab#	Sample ID	Compo	und Name		Result (ug/L)	RDL (ug/L)
6030213-01	MW-1	Benzen	e		ND	1.0
		Toluene	e		ND	1.0
		Ethylbe	enzene		ND	1.0
		m,p-Xy	lene		ND	1.0
		o-Xyler	ne		ND	1.0
		Tertiary	Butyl Alcohol (7	ΓΒΑ)	ND	12
		Methyl	tert-Butyl Ether (MTBE)	30	1.0
		Di-isop	ropyl Ether (DIPE	Ε)	ND	1.0
		_	ert-Butyl Ether (E		ND	1.0
		Tert-An	nyl Methyl Ether	(TAME)	ND	1.0
Sur	rrogates	Result (ug/L) % Recovery		ery _	Acceptance Range ((%)
Dibromofluorom	ethane	22.3	112		70-130	
Toluene-d8		19.0	95		70-130	
4-Bromofluorobe	enzene	21.4	107		70-130	
Date Sampled:	03/01/06		Date Analyzed:	03/02/06	QC B	atch: B000685
Date Received:	03/02/06		Method:	EPA 8260B		

Lab#	Sample ID	Compo	und Name		Result (ug/L)	RDL (ug/L)
6030213-02	MW-5	Benzen	e		ND	1.0
		Toluene	e		ND	1.0
		Ethylbe	enzene		ND	1.0
		m,p-Xy	lene		ND	1.0
		o-Xyler	ne		ND	1.0
		Tertiary	y Butyl Alcohol (Т	ГВА)	ND	12
		Methyl	tert-Butyl Ether (1	MTBE)	ND	1.0
		Di-isop:	ropyl Ether (DIPE	Ε)	ND	1.0
		Ethyl te	ert-Butyl Ether (E'	ГВЕ)	ND	1.0
		Tert-An	myl Methyl Ether	(TAME)	ND	1.0
Su	rrogates	Result (ug/L)	% Recove	ery _	Acceptance Range (%)
Dibromofluorom	ethane	21.8	109		70-130	
Toluene-d8		18.6	93		70-130	
4-Bromofluorobo	enzene	20.7	104		70-130	
Date Sampled:	03/01/06		Date Analyzed:	03/02/06	QC Ba	atch: B000685
Date Received:	03/02/06		Method:	EPA 8260B		



Lab#	Sample ID	Compo	und Name		Result (ug/L)	RDL (ug/L)
6030213-03	MW-11	Benzen	e		ND	1.0
		Toluene	e		ND	1.0
		Ethylbe	enzene		ND	1.0
		m,p-Xy	lene		ND	1.0
		o-Xyler	ne		ND	1.0
		Tertiary	y Butyl Alcohol (7	ГВА)	ND	12
		Methyl	tert-Butyl Ether (MTBE)	4.4	1.0
		Di-isop	ropyl Ether (DIPI	Ε)	ND	1.0
		Ethyl te	ert-Butyl Ether (E'	TBE)	ND	1.0
		Tert-An	nyl Methyl Ether	(TAME)	ND	1.0
Sur	rogates	Result (ug/L)	% Recove	ery _	Acceptance Ran	ge (%)
Dibromofluorom	ethane	22.7	114		70-130	
Toluene-d8		18.5	92		70-130	
4-Bromofluorobe	enzene	21.1	106		70-130	
Date Sampled:	03/01/06		Date Analyzed:	03/02/06	Q	QC Batch: B000685
Date Received:	03/02/06		Method:	EPA 8260B		



Quality Assurance Report

TPH Gasoline in Water

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B000706 - EPA 5030 GC										
Blank (B000706-BLK1)				Prepared	& Analyz	zed: 03/04	/06			
Gasoline	ND	50	ug/L	_						
Matrix Spike (B000706-MS1)	So	ource: 6022810)-01	Prepared	& Analyz	zed: 03/04	/06			
Benzene	9.53	0.50	ug/L	10.0	ND	95	70-130			
Toluene	10.3	0.50	ug/L	10.0	ND	103	70-130			
Ethylbenzene	10.3	0.50	ug/L	10.0	ND	103	70-130			
Xylenes	30.2	1.5	ug/L	30.0	ND	101	70-130			
Matrix Spike Dup (B000706-MSD1)	So	ource: 6022810)-01	Prepared	& Analyz	zed: 03/04	/06			
Benzene	9.48	0.50	ug/L	10.0	ND	95	70-130	0	20	
Toluene	10.1	0.50	ug/L	10.0	ND	101	70-130	2	20	
Ethylbenzene	10.0	0.50	ug/L	10.0	ND	100	70-130	3	20	
Xylenes	30.4	1.5	ug/L	30.0	ND	101	70-130	0	20	

Page 5 of 7

Lab Project#: 6030213

CA Lab Accreditation #: 2303



Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B000685 - EPA 5030 GC/MS										
Blank (B000685-BLK1)				Prepared	& Analyz	zed: 02/28	3/06			
Benzene	ND	1.0	ug/L	*	y					
Γoluene	ND	1.0	ug/L							
Ethylbenzene	ND	1.0	ug/L							
n,p-Xylene	ND	1.0	ug/L							
p-Xylene	ND	1.0	ug/L							
Tertiary Butyl Alcohol (TBA)	ND	12	ug/L							
Methyl tert-Butyl Ether (MTBE)	ND	1.0	ug/L							
Di-isopropyl Ether (DIPE)	ND	1.0	ug/L							
Ethyl tert-Butyl Ether (ETBE)	ND	1.0	ug/L							
Tert-Amyl Methyl Ether (TAME)	ND	1.0	ug/L							
Surrogate: Dibromofluoromethane	20.3		ug/L	20.0		102	70-130			
Surrogate: Toluene-d8	19.7		ug/L	20.0		98	70-130			
Surrogate: 4-Bromofluorobenzene	15.6		ug/L	20.0		78	70-130			
Matrix Spike (B000685-MS1)	Se	ource: 6022803	3-01	Prepared	& Analyz	zed: 02/28	/06			
1,1-Dichloroethene (1,1-DCE)	19.4	1.0	ug/L	25.0	ND	78	70-130			
Benzene	22.3	1.0	ug/L	25.0	ND	89	70-130			
Γrichloroethene (TCE)	22.9	1.0	ug/L	25.0	ND	92	70-130			
Γoluene	23.5	1.0	ug/L	25.0	ND	94	70-130			
Chlorobenzene	22.7	1.0	ug/L	25.0	ND	91	70-130			
Surrogate: Dibromofluoromethane	20.3		ug/L	20.0		102	70-130			
Surrogate: Toluene-d8	20.1		ug/L	20.0		100	70-130			
Surrogate: 4-Bromofluorobenzene	15.0		ug/L	20.0		75	70-130			
Matrix Spike Dup (B000685-MSD1)	Se	ource: 6022803	3-01	Prepared	& Analyz	zed: 02/28	/06			
1,1-Dichloroethene (1,1-DCE)	19.1	1.0	ug/L	25.0	ND	76	70-130	3	20	
Benzene	22.3	1.0	ug/L	25.0	ND	89	70-130	0	20	
Γrichloroethene (TCE)	22.8	1.0	ug/L	25.0	ND	91	70-130	1	20	
Гoluene	23.6	1.0	ug/L	25.0	ND	94	70-130	0	20	
Chlorobenzene	22.9	1.0	ug/L	25.0	ND	92	70-130	1	20	
Surrogate: Dibromofluoromethane	20.5		ug/L	20.0		102	70-130			
Surrogate: Toluene-d8	20.0		ug/L ug/L	20.0		100	70-130			
mirogane. I omene no	20.0		ug/L ug/L	20.0		100	,0150			

Lab Project#: 6030213 CA Lab Accreditation #: 2303



Notes and Definitions

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

RPD Relative Percent Difference



Analytical Sciences
P.O. Box 750336, Petaluma, CA 94975-0336
110 Liberty Street, Petaluma, CA 94952
(707) 769-3128

CHAIN OF CUSTODY LAB PROJECT NUMBER: 60302(3

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SEMA1	GINEERS	ESTWIND	SANTA ROSA, CA 95403	ker	1976-91	14-5769			DATE SAMPLED	30/11c		→										2	Unites	Wile	,
CLIENT INFORMATION	COMPANY NAME: SCS ENGINEERS	ADDRESS: 3645 WESTWIND BOULEVARD	SANTA	CONTACT: Kevin Coker	PHONE#: (707) 546-9461	FAX #: (707) 544-5769			CLIENT SAMPLE 1D.	1-MW	MW-5	11-MW										RELINQUISHED BY: \mathcal{R}	1	RELINQUISHED BY: Fam	RECEIVED BY:
	် S								ПЕМ	1	2	3	4	2	9	7	∞	6	9	7		RELI	REC	REL	REC

Appendix F

Certificate of Disposal dated January 10, 2006 - Water



INTEGRATED WASTESTREAM MANAGEMENT, INC. 950 AMES AVENUE, MILPITAS, CA 95035 PHONE: 408.942.8955 FAX: 408.842.1489

CERTIFICATE OF DISPOSAL

Generator Name:	Ghilotti Construction	Facility Name:	Ghilotti Construction
Address:	246 Ghilotti Avenue	Address:	246 Ghilotti Avenue
_	Santa Rosa, CA 95403		Santa Rosa, CA
Contact:	Damien Calegari	Facility Contact:	Sue Burneson, SCS Engineers
Phone:	707-585-1221	Phone:	707-546-9461
	·		

95647-DW IWM Job #: 1 Drum of Description of Waste: Non-Hazardous Water 01/10/06 Removal Date: SP100106-MISC Ticket #:

Transp	oorter Information	Disposal Facility Information
Name: Address:	IWM, Inc. 950 Ames Avenue	Name: Seaport Refining & Environmental Address: 675 Seaport Blvd
Phone:	Milpitas, CA 95035 (408) 942-8955	Redwood City, CA 94063 Phone: (650) 364-1024

IWM, INC. CERTIFIES THAT THE ABOVE LISTED NON-HAZARDOUS WASTE WILL BE TREATED AND DISPOSED AT THE DESIGNATED FACILITY IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE, AND LOCAL REGULATIONS.

William T. DeLon William 2. Ve For	
Authorized Representative (Print Name and Signature)	01/10/06
Authorized Representative (Print Name and Signature)	Date

Appendix G

Historical References

Historical References

- Ghilotti, 1995. Personal communication between D. Ghilotti and L. Mackey-Taverner, June 26.
- PNEG, 1996. Monitoring Report, Sensitive Site Receptor Survey, and Request for Site Closure, 246 Ghilotti Avenue, Santa Rosa, California, October 15.
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- PNEG, 1998a. Semiannual Groundwater Monitoring Report for June 1998 Sampling, 246 Ghilotti Avenue, Santa Rosa, August 1998.
- PNEG, 1999a. Status Report for 246 Ghilotti Avenue, Santa Rosa, December 14.
- PNEG, 1999b. Results of the December 1999 Quarterly Monitoring Event and Domestic Well Sampling at 246 Ghilotti Avenue, Santa Rosa, February 28.
- PNEG, 2000a. Results of the March 2000 Quarterly Monitoring Event and Domestic Well Sampling at 246 Ghilotti Avenue, Santa Rosa, May 31.
- PNEG, 2000b. Results of the 2nd Quarter 2000 Monitoring Event and Domestic Well Sampling at 246 Ghilotti Avenue, Santa Rosa, August 7.
- PNEG, 2000c. Results of the 3rd Quarter 2000 Monitoring Event and Domestic Well Sampling at 246 Ghilotti Avenue, Santa Rosa, December 11.
- PNEG, 2001a. Results of the 4th Quarter 2000 Monitoring Event and Domestic Well Sampling at 246 Ghilotti Avenue, Santa Rosa, February 23.
- PNEG, 2001b. Results of the 2nd Quarter 2001 Groundwater Monitoring and Sampling and Domestic Well Sampling Event at 246 Ghilotti Avenue, Santa Rosa, June 6.
- PNEG, 2001c. Results of the 3rd Quarter 2001 Groundwater Monitoring and Sampling and Domestic Well Sampling Event at 246 Ghilotti Avenue, Santa Rosa, September 7.
- PNEG, 2001d. Results of the 4th Quarter 2001 Groundwater Monitoring and Sampling Event at 246 Ghilotti Avenue, Santa Rosa, November 30.
- PNEG, 2002a. Results of the 1st Quarter 2002 Groundwater Monitoring and Sampling Event at 246 Ghilotti Avenue, Santa Rosa, March 20.
- PNEG, 2002b. Work Plan to Define the Lateral and Vertical Extent of MTBE Contamination- 246 Ghilotti Avenue, Santa Rosa, California, May 28.
- PNEG, 2002c. Results of the 2nd Quarter 2002 Groundwater Monitoring and Sampling Event at 246 Ghilotti Avenue, Santa Rosa, June 6.
- PNEG, 2002d. Results of the 3rd Quarter 2002 Groundwater Monitoring and Sampling Event at 246 Ghilotti Avenue, Santa Rosa, August 14.
- PNEG, 2002e. Results of the 4th Quarter 2002 Groundwater Monitoring and Sampling Event at 246 Ghilotti Avenue, Santa Rosa, November 13.
- PNEG, 2003a. Results of the 1st Quarter 2003 Groundwater Monitoring and Sampling Event at 246 Ghilotti Avenue, Santa Rosa, California, March 17.
- PNEG, 2003b. Results of the 2nd Quarter 2003 Groundwater Monitoring and Sampling Event at 246 Ghilotti Avenue, Santa Rosa, California, May 8.
- SCDHS, 2002. Work Plan approval from C. Ives, dated June 24.
- SCDHS, 2005a. Work Plan Directive from C. Ives to R. Ghilotti, dated July 11.
- SCDHS, 2005b. Regulatory letter re: detection limit of 12 μ g/L for TBA, September 12.

- SCDHS, 2005c. Work Plan Approval from C. Ives to R. Ghilotti, November 14.
- SCS, 2003a. Results of the 3rd Quarter 2003 Groundwater Monitoring and Sampling Event at 246 Ghilotti Avenue, Santa Rosa, California, August 13.
- SCS, 2003b. Results of the 4th Quarter 2003 Groundwater Monitoring and Sampling Event at 246 Ghilotti Avenue, Santa Rosa, California, November 20.
- SCS, 2004a. Results of the 1st Quarter 2004 Groundwater Monitoring and Sampling Event at 246 Ghilotti Avenue, Santa Rosa, California, January 29.
- SCS, 2004b. Results of the 2nd Quarter 2004 Groundwater Monitoring and Sampling Event at 246 Ghilotti Avenue, Santa Rosa, California, May 7.
- SCS, 2004c. Results of the 3rd Quarter 2004 Groundwater Monitoring and Sampling Event at 246 Ghilotti Avenue, Santa Rosa, California, August 9.
- SCS, 2004d. Results of the 4th Quarter 2004 Groundwater Monitoring and Sampling Event at 246 Ghilotti Avenue, Santa Rosa, California, December 29.
- SCS, 2005a. Site Health and Safety Plan, January 2005.
- SCS, 2005b. Results of Additional Subsurface Investigation, at 246 Ghilotti Avenue, Santa Rosa, California, May 6.
- SCS, 2005c. Results of the 2nd Quarter 2005 Groundwater Monitoring and Sampling Program 246 Ghilotti Avenue, Santa Rosa, California, August 18.
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- SCS, 2005d. Results of the 3rd Quarter 2005 Groundwater Monitoring and Sampling Event at 246 Ghilotti Avenue, Santa Rosa, California, October 24.
- SCS, 2005e. Work Plan Addendum, dated December 5.